magicolor® 6110 User's Guide

1800647-001A

Thank You

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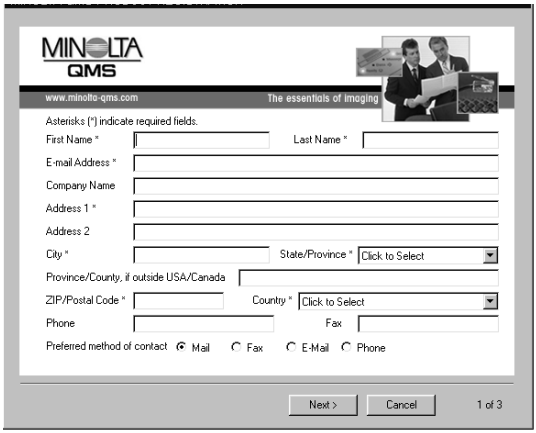
Registering the Printer

Mail—Fill out and send in the registration card enclosed in your shipment or downloaded from www.onlineregister.com/minolta-qms/

Internet—Follow the instructions on www.onlineregister.com/minolta-qms/

or

Software Utilities **CD-ROM**—Follow the instructions on the CD-ROM.



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1 Replacing Consumables

Consumable Life Expectancies

What is the life expectancy of consumables?

Attention

Consumable life is expressed in simplex letter/A4 pages @ normal 5% coverage in continuous printing. A duplex page is equivalent to two simplex pages.

The stated life expectancy of each consumable is based on printing under specific operating conditions, such as ratio of color to monochrome, and media type and size. The actual life expectancy will vary (or be reduced) depending on these and other printing variables, including continuous (optimal consumable life) or intermittent (for example, one-page jobs) printing, ambient temperature, and humidity.

What is a consumable?

For the magicolor 6110, consumables include the cleaning roller, fuser oil bottle, OPC belt cartridge, toner cartridge, and the waste toner bottle.

What is a plane?

A **plane** is a single **pass** of the OPC belt (one toner color). For example, a black-only, single-sided (simplex) print job makes one pass (plane).

A **single-sided** color **page** (also called a **face**) consists of up to four passes of the OPC belt, since most color print jobs use all four toner colors. An **image** is four planes. A **two-sided** (duplex) color page (also called a **sheet**) may consist of up to eight passes of the OPC belt if all toners are used.

The number of sheets/faces printed shown on the startup page may differ from the sheets printed and faces printed statistics in CrownView and on the consumables statistics page (Operator Control/Consumables/Print Statistics). The numbers on the startup page refer to number of sheets/faces printed during the lifetime of the printer. The numbers in CrownView and on the consumables statistics page refer to the number of sheets/faces printed to date during the current consumables tracking period (Administration/ Consumables/Start Period menu).

Where can I get more information?

For further information about the consumables statistics page and replacement menus, refer to the *CrownBook*.

Replacing Consumables

Attention

Failure to follow instructions as outlined in this printer documentation could result in voiding your warranty.

Use of consumables not manufactured by MINOLTA-QMS may cause damage to your printer and void your warranty. If MINOLTA-QMS printer failure or damage is found to be directly attributable to the use of non-MINOLTA-QMS consumables, MINOLTA-QMS will not repair the printer free of charge. In this case, standard time and material charges will be applied to service your printer for that particular failure or damage.

The following messages indicate that an item needs to be replaced.

Item/ Message Display	Maximum Life Expectancy	Minimum Life Expectancy	This item needs replacing by user after...	Comment
Cleaning roller `REPLACE CLEANING ROLLER`	20,000 pages		`REPLACE CLEANING ROLLER` displays in the message window (after 20,000 pages).	If a previously used cleaning roller is installed and the usage information is reset, the monitoring system will provide incorrect usage information. See “Replacing the Cleaning Roller” on page 23.
Fuser oil botle `REPLACE OIL BOTTLE`	12,000 pages		`FUSER OIL EMPTY` displays in the message window (after up to 12,000 pages).	Fuser oil life is media dependent. Heavy coverage, intermittent printing, and different media types can use up oil at an accelerated rate, reducing fuser oil bottle life. See “Replacing the Fuser Oil Bottle” on page 20.

Item/ Message Display	Maximum Life Expect-ancy	Minimum Life Expect-ancy	This item needs replacing by user after...	Comment
OPC belt cartridge REPLACE BELT	120,000 planes (usually occurs with continu-ous use)	60,000 planes (may occur with job sizes aver-aging one page)	REPLACE BELT displays in the message win-dow (up to 120,000 pages).	Other factors also affect cartridge life. See “Replacing the OPC Belt Cartridge” on page 15.
Toner <*COLOR*> TONER EMPTY	14,000 planes black (K); 8,500 planes per cartridge of cyan, magenta, and yellow (CMY)		<*COLOR*> TONER EMPTY displays in the message window (after approximately 14,000 planes per black car-tridge and 8,500 planes per yellow, magenta, and cyan cartridge).	The initial starter toner kit that is shipped with your printer will contain four toner cartridges with half of the capacity of the replacement toner cartridges. This means that the ini-tial starter black toner cartridge has a life of 7,000 letter/ A4-size planes (@ 5% coverage), while the initial starter cyan, magenta, and yel-low toner cartridges each have a life of 4,250 letter/A4-size planes (@ 5% cov-erage of each color). See “Replacing a Toner Cartridge” on page 11.
Waste toner bottle CHECK WASTE TONER	18,000 pages		CHECK WASTE TONER displays in the message window (after 18,000 color planes).	See “Replacing the Waste Toner Bot-tle” on page 25.

Item/ Message Display	Maximum Life Expect-ancy	Minimum Life Expect-ancy	This item needs replacing by user after...	Comment
Ozone filter*	12 months		12 months	“Replacing the Ozone Filter” on page 27.
Notes	*Ozone filters are maintenance items that are user-installable.			

Ordering Consumables

How do I order consumables?

Choosing the right consumables for your magicolor 6110 printer not only increases its reliability and performance, but also minimizes the risk of damage.

For example, only MINOLTA-QMS toner cartridges are designed to meet the exact specifications of your MINOLTA-QMS printer, giving maximum performance, efficiency, and long life.

Toner cartridges and other consumables for the magicolor 6110 are available from your local vendor or Q-SHOP (www.q-shop.com).

Where can I get more information?

See the *Service & Support Guide* for the telephone number of the MINOLTA-QMS office nearest you for information on ordering.

Replacing a Toner Cartridge

Characters and images are created in your laser printer through a process that applies toner to the photosensitive (OPC) belt (which functions like photographic film). Your printer uses four toner cartridges: black, yellow, magenta, and cyan. Handle the toner cartridges carefully to avoid spilling toner inside the printer or on yourself.

The carbon-particle toner is nontoxic. If you get toner on your hands, wash them in cool water or a neutral detergent. If you get toner on your clothes, lightly dust them off as much as possible. If some toner remains on your clothes, use cool, not hot water, to rinse the toner off, provided your clothing is washable.

WARNING!

If you get toner in your eyes, wash it out immediately and consult a doctor. Material Safety Data Sheets (MSDS) information can be found at www.minolta-qms.com (click on the Answer Base).

ACHTUNG! Sollte Toner in Ihre Augen gelangen, die Augen unbedingt sofort mit kaltem Wasser ausspülen und einen Artzt aufsuchen. MSDS-Informationen (Material Safety Data Sheets; Datenblätter zur Materialsicherheit) finden Sie im Internet unter www.minolta-qms.com (klicken Sie auf "Answer Base").

Toner Cartridge Life

A toner cartridge contains enough toner to print the following number of letter/A4-size planes:

Color	Rated life @ normal 5% coverage
Black	14,000 planes
Yellow	8,500 planes
Magenta	8,500 planes
Cyan	8,500 planes

Initial starter black toner cartridges will print 7,000 letter/A4-size planes, while the yellow, magenta, and cyan initial starter toner cartridges will each print 4,250 letter/A4-size planes at normal 5% coverage.

When toner runs low in a cartridge, *<COLOR>* TONER LOW displays in the message window. Printing continues even though the warning appears. However, the color gradually fades, so replace the toner cartridge as soon as possible.

When toner is low, it's sometimes helpful to take the cartridge out of the printer and redistribute the toner by gently rocking the cartridge horizontally side to side (as you do for a new cartridge) five or six times. Then reinstall the cartridge.

If the *<COLOR>* TONER LOW message remains in the message window after you redistribute the toner and print quality is affected, you must replace the toner cartridge.

The printer, approximately 100 planes after detecting that toner in a cartridge is low, displays *<COLOR>* TONER EMPTY in the message window.

If the user changes the toner before it is empty and does not reset the counter (Operator Control/Consumables/Item Replaced), the consumable status will be incorrect.

Toner Cartridge Handling

Keep toner cartridges

- In their packaging until you're ready to install them.
- In a cool, dry location away from sunlight (due to heat).

  The maximum storage temperature is 95° F (35° C) and the maximum storage humidity is 80% without condensation.
- Level during storage.

  Do not stand or store cartridges on their ends or turn them upside down; the toner inside the cartridges may become caked or unequally distributed.
- Away from salty air and corrosive gases such as aerosols.

How do I replace a toner cartridge?

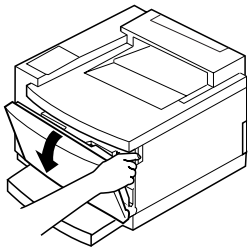
Toner Cartridge Replacement

Your printer uses four toner cartridges: black, yellow, magenta, and cyan.

1 Check the message display to see what toner color is out.

2 Open the printer's front cover.

Press the front cover latch on the upper right side of the printer.



3 Remove and discard the empty toner cartridge.

WARNING!

Dispose of the used toner cartridge according to your local regulations. Do not dispose of it by burning.

ACHTUNG! Entsorgen Sie alte Tonerkassetten keinesfalls durch Verbrennen, sondern ordnungsgemäß entsprechend den lokalen Bestimmungen.

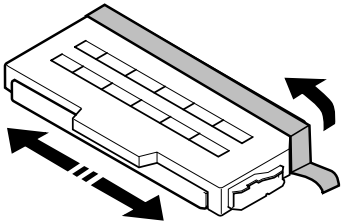
4 Remove the new toner cartridge from its shipping bag.

Attention

Do not hold the toner cartridge vertically.

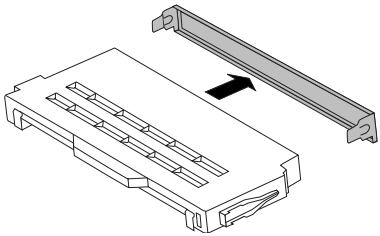
5 Distribute the toner inside the cartridge.

*Holding a cartridge with both hands, gently rock it **horizontally** five or six times.*

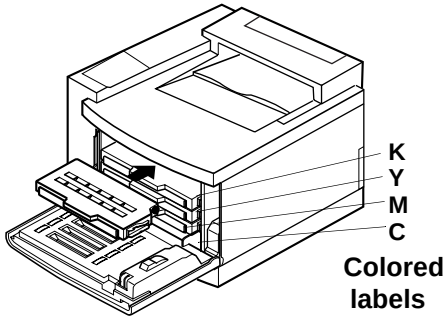


6 Carefully remove the tape by pulling on the tab.

7 Remove the *orange* protective cover from the cartridge.



8 Align the toner cartridge with the cartridge guides, and gently push the cartridge into the printer.



Each toner cartridge has a colored label that corresponds to a colored label to the right of the cartridge slots. Always install the toner cartridge in the slot with a label of the same color.

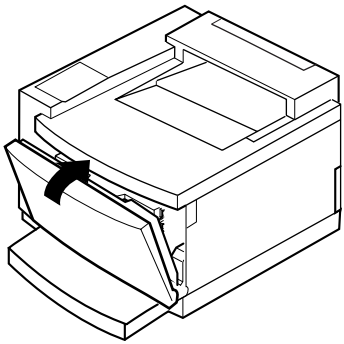
While the cartridges may appear not to be fully inserted, gently closing the front cover will guide them to their proper operating position.

Attention

If a toner cartridge doesn't slide in easily, don't force it.

9 Close the printer's front cover.

10 Print at least 20 sheets to make sure the toner in the new cartridge has settled properly.



Refilled Toner Cartridges

Attention

Refilled toner cartridges may produce variations in toner quality and reliability and can reduce the print quality of your documents. Any damage to the printer or quality problems caused by a refilled toner cartridge use will void your warranty.

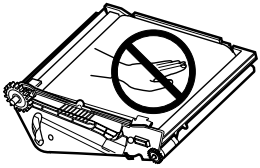
Replacing the OPC Belt Cartridge

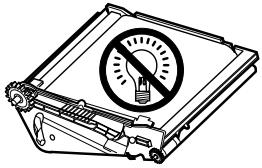
WARNING!

The fuser unit can become extremely hot and cause severe burns. Make sure the unit is cool before handling it.

ACHTUNG! Die Fixiereinheit kann sehr heiß werden, so daß Verbrennungsgefahr besteht. Bitte lassen Sie die Fixiereinheit einige Zeit abühlen, bevor Sie diese berühren.

Attention





The OPC belt is extremely sensitive to bright light and direct sunlight. Always leave it in its protective bag until you're ready to install it. Any exposure to light should be avoided and limited to less than two minutes, or permanent damage could result.

If you suspect a belt is damaged due to exposure to light, put the belt in a dark place to recover. Depending on the amount of exposure, recovery may take up to two hours. Recovery time is dependent on the amount of exposure sustained, and recovery is not guaranteed.

Any damage resulting from mishandling of the OPC belt cartridge will void the warranty of the OPC belt cartridge. Also, handle the cartridge carefully by its sides so you don't touch the surface (the green part) of the belt. The belt cartridge is extremely sensitive to hand oils and scratches, both of which reduce print quality.

When the top cover is opened, the fuser unit temperature drops gradually (one hour wait time). Do not replace the OPC belt cartridge until you are sure that the fuser unit has cooled down.

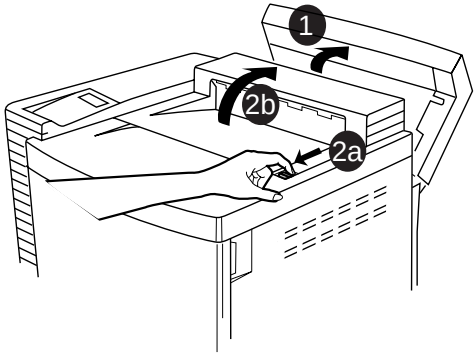
When the OPC belt cartridge is worn out, the message REPLACE BELT appears. The printer will not print until the OPC belt is replaced.

When you replace the OPC belt cartridge after a REPLACE BELT message displays in the message window, the printer automatically recovers.

The OPC belt life is directly related to the number of rotations of the belt. Longest belt life is achieved with continuous printing. Intermittent printing with small job sizes requires cleaning rotations before and after each job, and subsequently will impact OPC life.

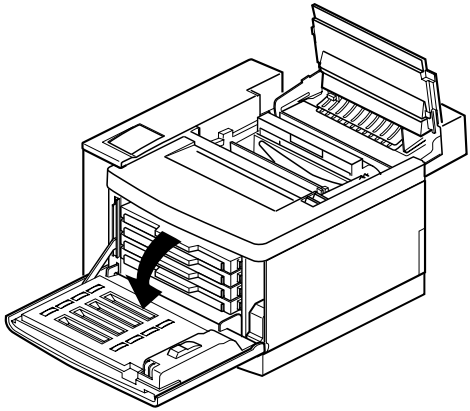
How do I replace an OPC belt cartridge?

1 Open the printer's top and front covers.



Attention

If you have installed a duplex unit, it must be opened before the printer's top cover.

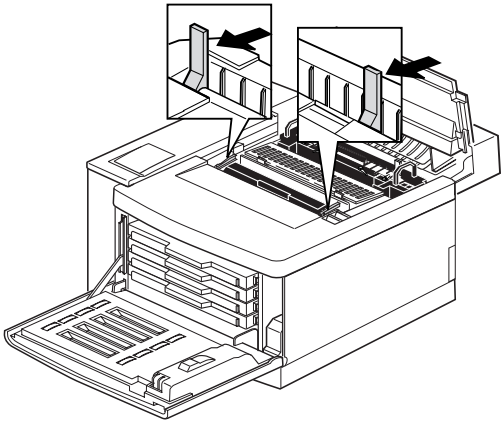


Attention

Opening the front cover pulls the toner cartridges forward slightly to make room for the OPC belt cartridge. You could damage the OPC belt if you don't do this.

2 Rotate up the two lock levers (one on each side of the OPC belt cartridge).

3 Remove the used OPC belt cartridge.



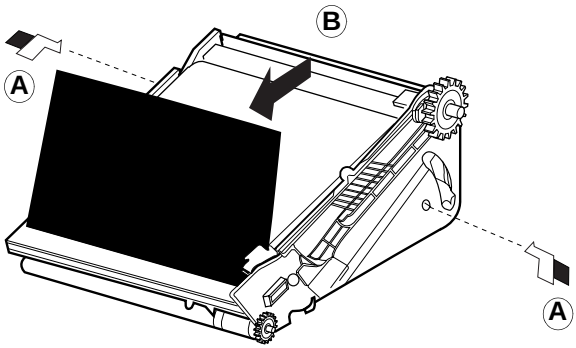
WARNING!

Dispose of the used OPC belt cartridge according to your local regulations. Do not dispose of it by burning.

ACHTUNG! Entsorgen Sie die Trommeleinheit ordnungsgemäß entsprechend den lokalen Bestimmungen.

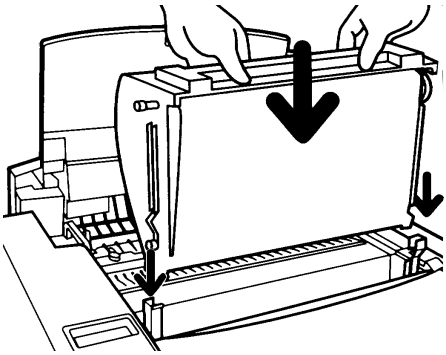
4 Remove the new OPC belt cartridge from its packaging.

5 Pull out the two orange tension-release pins A (one on each side of the cartridge), and then remove the protective sheet B from the cartridge.



The green surface of the cartridge faces you. The white powder lubricant on a new OPC belt is normal; it won't affect quality.

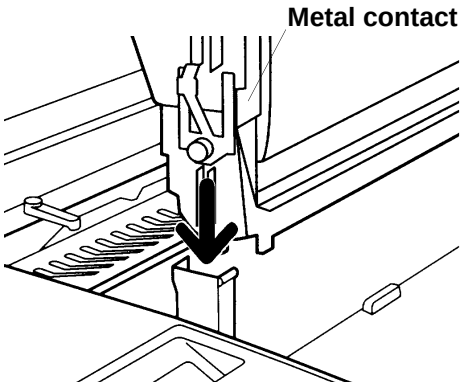
6 Holding the cartridge above the printer, align the guide pins on the cartridge with the guide slots in the lock levers.



Attention

When lowering the cartridge into the guide slots, the metal contact on the lower-left side of the cartridge should be aligned outside of the left guide slot.

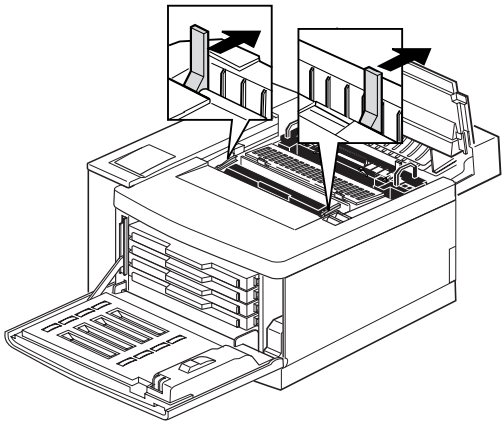
7 Gently guide the cartridge into the printer.



Attention

The cartridge should slide easily into the printer. Don't force it.

8 Rotate the two lock levers to secure the OPC belt cartridge in the printer.

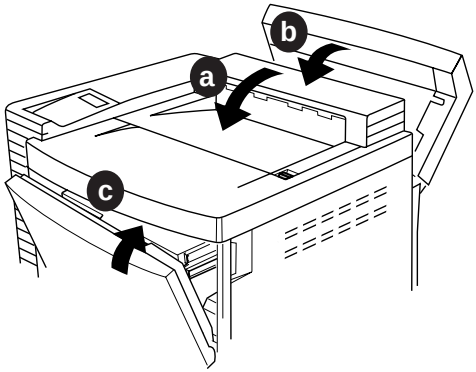


9 Close the printer's top cover.

10 If you have a duplex unit installed, close the unit's top cover.

11 Close the printer's front cover.

12 In the Operator Control/ Consumables/Item Replaced/OPC Cartridge menu choose **Yes** to reset the consumables usage monitoring system.



You should manually reset the consumables usage monitoring system to ensure accurate consumables monitoring.

To access consumables usage information, use the Operator Control/ Consumables/Print Statistics menu or the CrownView printer web page.

Replacing the Fuser Oil Bottle

The fuser oil provides a lubricant necessary for the proper functioning of the printer.

WARNING!

The fuser unit can become extremely hot and cause severe burns. Make sure the unit is cool before handling it.

ACHTUNG! Die Fixiereinheit kann sehr heiß werden, so daß Verbrennungsgefahr besteht. Bitte lassen Sie die Fixiereinheit einige Zeit abühlen, bevor Sie diese berühren.

Attention

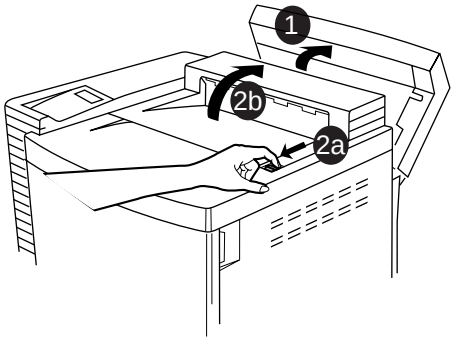
When the top cover is opened, the fuser unit temperature drops gradually (one hour wait time). Do not replace the fuser oil bottle until you are sure that the fuser unit has cooled down.

How do I replace the fuser oil?

When the oil in the fuser oil bottle is expended, the message `FUSER OIL EMPTY` appears and the printer does not print. Replace the fuser oil bottle. After the new bottle is installed, printing automatically resumes.

1 Turn off the printer.

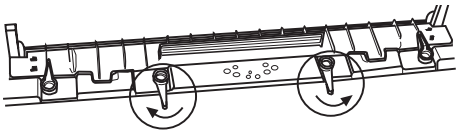
2 Open the top cover of the printer.



Attention

If you have installed a duplex unit, it must be opened before the printer's top cover.

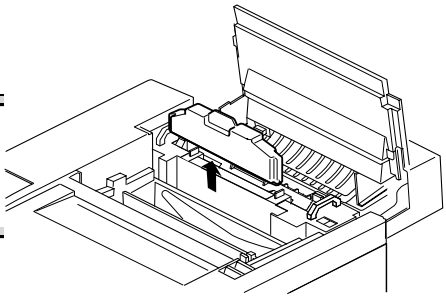
3 Rotate the two fuser oil bottle lock levers to release the fuser oil bottle.



4 Remove the empty fuser oil bottle.

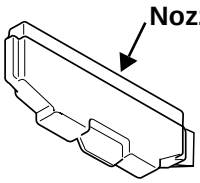
Attention

Hold a sheet of paper under the oil bottle as you remove it, so no oil drips into the printer.



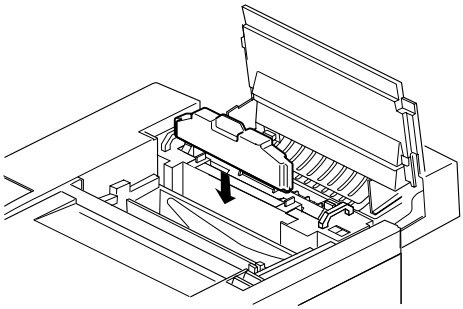
5 Turn the nozzle on the opening on the bottom clockwise to close it.

6 Use the fuser oil remover syringe that came with your printer or an eye-dropper to remove any excess oil from the printer.

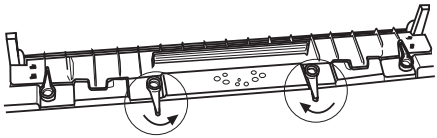


Dispose of the oil and fuser oil bottle in accordance with local safety laws and regulations.

7 Install the new fuser oil bottle (nozzle down).

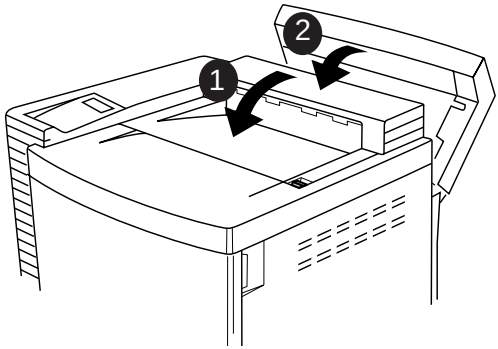


8 Rotate the two oil bottle levers to lock the oil bottle into place.



9 Close the top cover and turn on the printer.

If you have a duplex unit installed, close the unit's top cover.



10 In the Operator Control/ Consumables/Item Replaced/Fuser Oil menu choose **Yes** to reset the consumables usage monitoring system.

You should manually reset the consumables usage monitoring system to ensure accurate consumables monitoring.

To access consumables usage information, use the Operator Control/ Consumables/Print Statistics menu or the CrownView printer web page.

Replacing the Cleaning Roller

WARNING!

The fuser unit can become extremely hot and cause severe burns. Make sure the unit is cool before handling it.

ACHTUNG! Die Fixiereinheit kann sehr heiß werden, so daß Verbrennungsgefahr besteht. Bitte lassen Sie die Fixiereinheit einige Zeit abühlen, bevor Sie diese berühren.

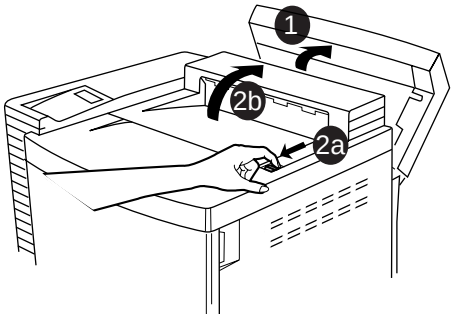
Attention

When the top cover is opened, the fuser unit temperature drops gradually (one hour wait time).

Do not replace the cleaning roller until you are sure that the fuser unit has cooled down.

How do I replace the cleaning roller?

1 Turn off the printer.

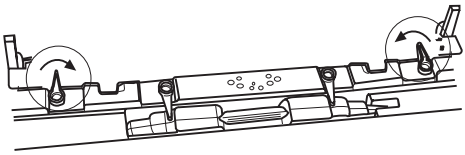


2 Open the top cover of the printer.

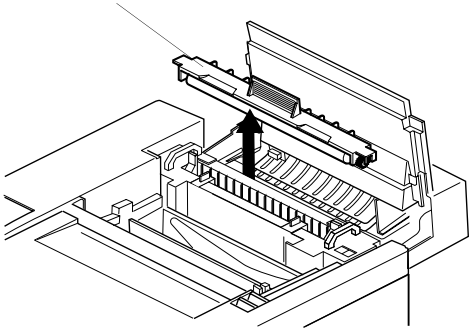
Attention

If you have installed a duplex unit, it must be opened before the printer's top cover.

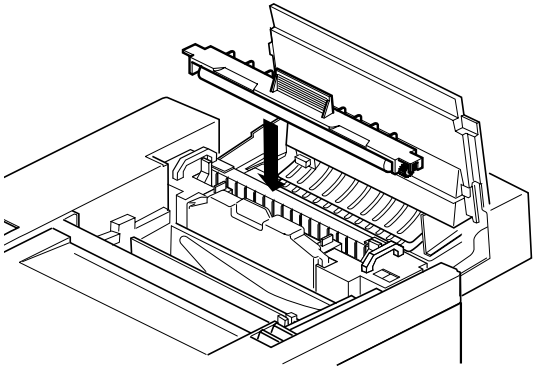
3 Open the two cleaning roller lock levers.



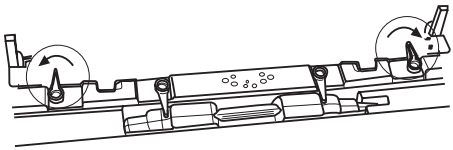
4 Grasp the handle of the cleaning roller and remove it.



5 Install the new cleaning roller.

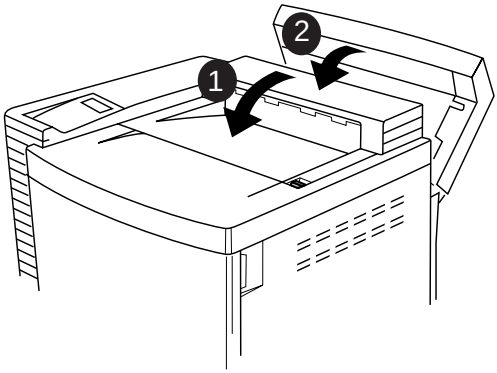


6 Close the two cleaning roller lock levers.



7 Close the top cover and turn on the printer.

If you have a duplex unit installed, close the duplex unit's top cover.



8 In the Operator Control/ Consumables/Item Replaced/Cleaning Roller menu choose **Yes** to reset the consumables usage monitoring system.

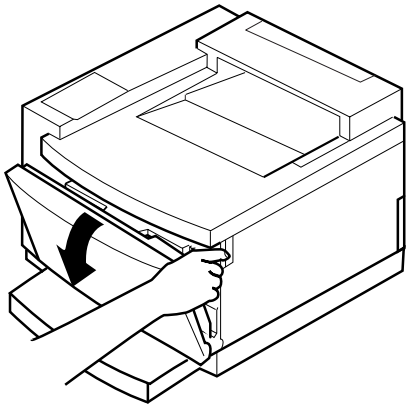
You should manually reset the consumables usage monitoring system to ensure accurate consumables monitoring.

To access consumables usage information, use the Operator Control/Consumables/Print Statistics menu or the CrownView printer web page.

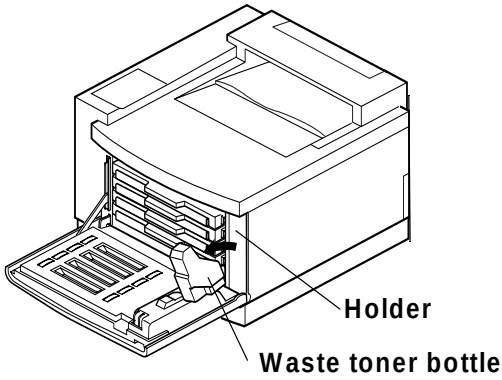
Replacing the Waste Toner Bottle

How do I replace the waste toner bottle?

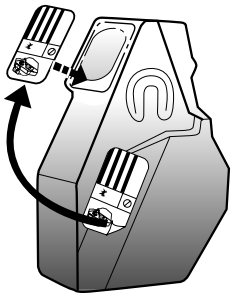
1 Open the front cover.



2 Take out the used waste toner bottle.



3 Use the label on the side of the used waste toner bottle to seal the opening.



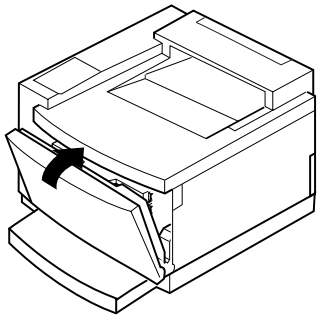
WARNING!

Dispose of the used waste toner bottle according to your local regulations. Do not dispose of it by burning.

ACHTUNG! Entsorgen Sie den Alttonerbehälter keinesfalls, indem Sie ihn verbrennen, sondern ordnungsgemäß entsprechend den lokalen Bestimmungen.

4 Set the new waste toner bottle in the holder.

5 Close the cover.



6 In the Operator Control/Consumables/Item Replaced/Waste Toner Bottle menu choose **Yes** to reset the consumables monitoring system.

When you replace the waste toner bottle after a `CHECK WASTE TONER` *message displays in the message window, the engine automatically recovers. However, you should manually reset the consumables usage monitoring system to ensure accurate consumables monitoring.*

To access consumables usage information, use the Operator Control/Consumables/Print Statistics menu or the CrownView printer web page.

Replacing the Ozone Filter

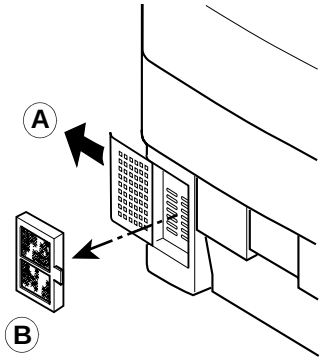
How do I replace the ozone filter?

The ozone filter reduces exhausted ozone gas. It should be replaced every 12 months.

1 Slide open the ozone filter door on the left rear of the printer.

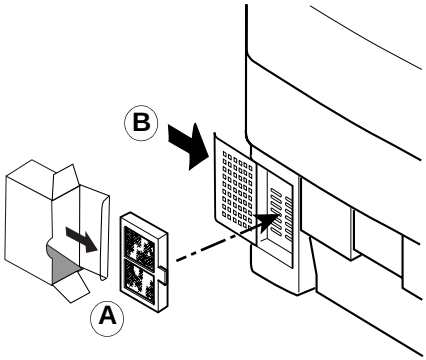
2 Remove the ozone filter from the case.

Dispose of the used ozone filter according to your local regulations.



3 Install a new ozone filter in the case.

4 Reinstall the ozone filter case.



2 Using Media

Introduction

This chapter provides information on handling, selecting, and storing media.

Media Storage and Handling

How do I store media?

When storing media, avoid

- Direct sunlight
- Excess heat and humidity
- Dust

If media has been removed from its wrapper, place it in its original packaging and store in a cool, dark place on a level surface.

Before purchasing a large quantity or special media, do a trial printing with the same media and check print quality.

What should I watch out for when handling/loading media?

Attention

Do not use the media types listed below. These could cause poor print quality, media jams, or damage to the printer.

Do not use media that is

- Meant for ink jet printers
- Folded, embossed, warped, or wrinkled
- Perforated or prepunched
- Too slick, too coarse
- Composed of foil or gilt
- Coated with a processed surface (such as carbon paper, heat-sensitive paper, heat-pressure paper)
- Irregularly shaped (not rectangular); not uniform in size
- Bound with glue, tape, or paper clips
- Attached to ribbons, hooks, buttons, etc.
- Any other media that is not approved

What should I watch out for when loading envelopes?

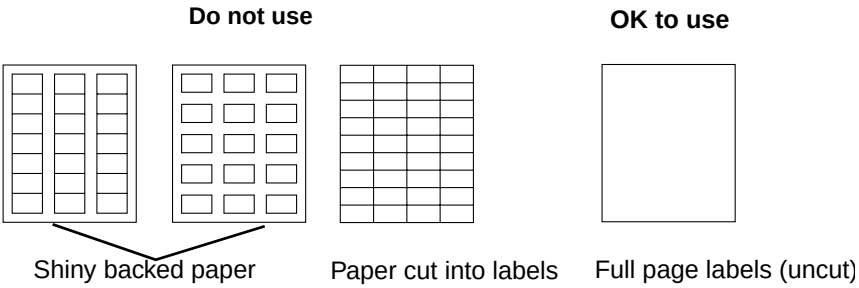
Do not use envelopes that have

- Sticky flaps
- Metal clasps, fasteners, transparent windows, peel-off strips for sealing
- Material that will melt, vaporize, offset discolor, or emit dangerous fumes

What should I watch out for when loading labels?

Do not use labels that have

- Label(s) already peeled off
- Labels that peel off easily
- Glue or sealer that might come off
- Material that will melt, vaporize, offset discolor, or emit dangerous fumes



Media Trays

Location	Media tray	Sheet capacity
Upper	Universal (standard) Tray 1	250
Upper	Letter/A4 (optional) (replaces the universal tray)	250
Lower	Lower feeder unit (LFU) (up to two optional) Trays 2 and 3	500 each
Notes	You may rename these trays for your convenience. See the *CrownBook* for more information.	

Printing Area

What sizes of media can I use?

Your printer supports full-color printing on all media sizes. Each media size has a specific imageable area, the maximum area on which the printer can print clearly and without distortion. This area is subject to both hardware limits (the physical media size and the margins required by the printer) and software constraints (the amount of memory available for the full-page frame buffer). The imageable (printable) area for media sizes except oversize is the page size minus 0.197" (5 mm) from the edges. The imageable (printable) area for oversize media left and right edges is the page size minus 0.393" (10 mm).

Media	Media Size		Simplex Imageable Area		Printer Mode	Input Source *	Auto-duplex ***
	Inches	Millimeters	Inches	Millimeters			
A3	11.7x16.5	297.0x420.0	11.3x16.1	287.0x410.0		U/L	Yes
A4	8.2x11.7	210.0x297.0	7.8x11.3	200.0x287.0		U/A/L	Yes
A4 Transparency	8.2x11.7	210.0x297.0	7.8x11.3	200.0x287.0	Auto.**	U/A	No
B4	10.1x14.3	257.0x364.0	9.7x13.9	247.0x354.0		U/L	No
B5 (ISO) Envelope	6.9x9.8	176.0x250.0	6.5x9.4	166.0x240.0	Thick	F	No
B5 (JIS)	7.2x10.1	182.0x257.0	6.7x9.7	172.0x247.0		U/L	No
Commercial #10 Envelope	4.1x9.5	105.0x241.3	3.7x9.1	95.0x231.3	Thick	F	No
International DL Envelope	4.3x8.7	110.0x220.0	3.9x8.2	100.0x210.0	Thick	F	No
Executive	7.3x10.5	184.0x267.0	6.9x10.1	174.0x257.0		U	Yes
Japanese Postcard	3.9x5.8	110.0x148.0	3.5x5.4	100.0x138.0	Thick	F	No
Ledger	11.0x17.0	279.4x432.0	10.6x16.6	269.4x422.0		U/L	Yes
Legal	8.5x14.0	215.9x355.6	8.1x13.6	205.9x345.6		U/L	Yes
Letter	8.5x11.0	215.9x279.4	8.1x10.6	205.9x269.4		U/A/L	Yes
Letter Transparency	8.5x11.0	215.9x279.4	8.1x10.6	205.9x269.4	Auto.**	U/A	No
Oversize	13.0x19.0	330.2x482.6	12.2x17.8	310.2x452.6		U	Yes
Oversize	13.0x18.0	330.2x457.2	12.2x17.6	310.2x447.2		U	No
Oversize	12.0x18.0	304.8x457.2	11.2x17.6	284.8x447.2		U	No

Notes

* U = Upper universal media tray (250 sheet)
  A = Upper letter/A4 (optional) media tray (250 sheet)
  F = Upper media tray with optional envelope or postcard feeder
  L = Lower feeder unit (optional) media tray (500 sheet)

**Transparencies and plain paper up to 24 lb bond [90 g/m^2] use the Automatic mode to print; other media types/weights use the Glossy Stock or Thick Stock mode. Transparencies must also be selected in the driver.

***An optional duplex unit can be added to all models that have a lower feeder unit attached. Only plain paper can be autoduplexed.

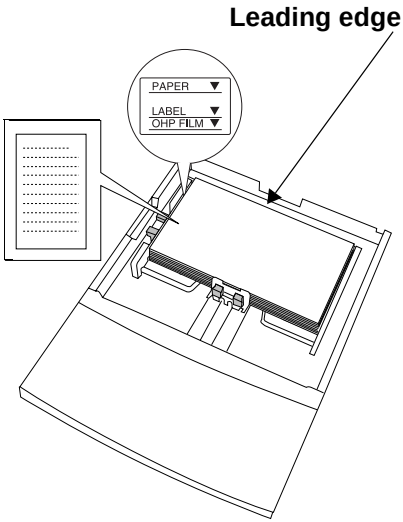
What is the difference between a nonprintable and non-guaranteed area?

Nonguaranteed areas are areas on which you can print, but image quality in these areas might be compromised.

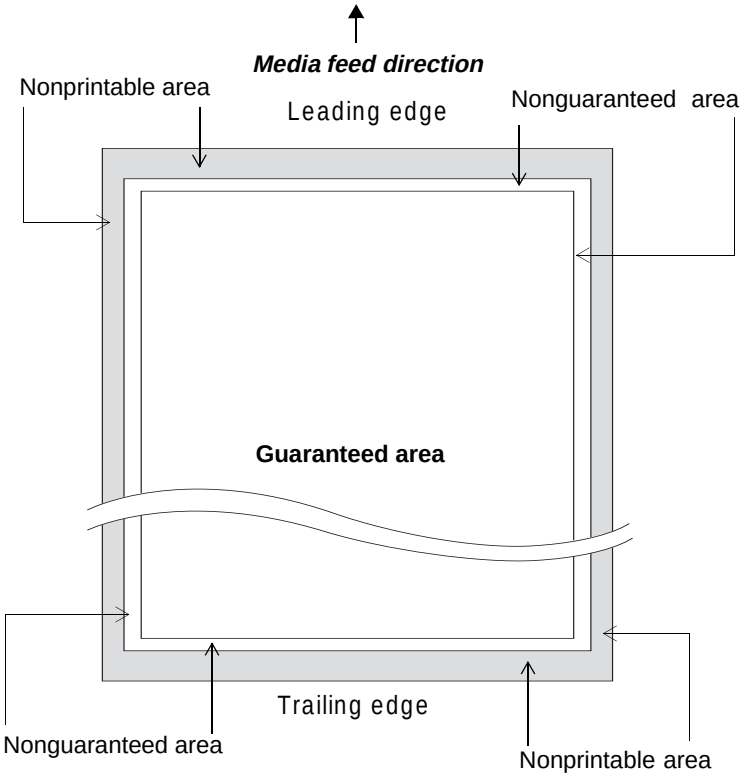
All A3, envelope, ledger, postcard, and oversize media is fed in the portrait (short edge first) orientation.

Since other media sizes can be fed into the printer either short- or long-edge first, the "leading edge" isn't necessarily the top of the page.

Check the orientation of the media in the media tray to determine which side is the "leading edge."



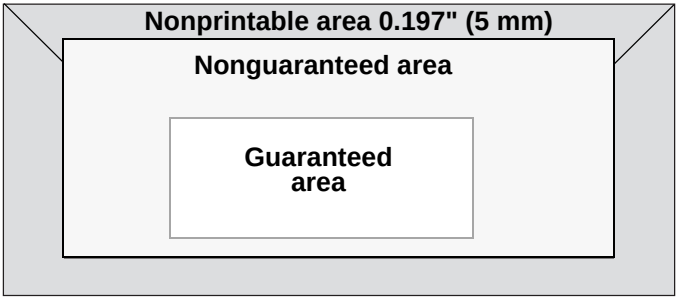
Imageable (Printable) Area



	Nonprintable area	**For nonguaranteed area, add another**
Plain paper, front side, all edges (media up to but not including 12” x 18” (304.8 mm x 457.2 mm)	0.197" (5 mm)	0.078" (2 mm)
Duplex (back side, leading edge)*		0.078" (2 mm)
Duplex, front side*		0.118" (3 mm)
Thick stock, labels, transparencies, front side only, all edges		0.197" (5 mm)
Envelopes		Varies
Side margins for media 12” x 18” (304.8 mm x 457.2 mm) and larger	0.393” (10 mm)	N/A
*An optional duplex unit can be added to all models that have a lower feeder unit attached. Only plain paper can be duplexed.		

Envelopes

Print orientation is determined by your application.



Page Margins

Margins are set through your application. Some applications allow you to set custom page sizes and margins while others have only standard page sizes and margins from which to choose. If you choose a standard format, you may lose part of your image (due to imageable area constraints). If you can custom-size your page, use those sizes given for the imageable area for optimum results.

Image Alignment

If for any reason, you need to change the image alignment, you can do so in several different ways:

- Adjust the margins or page size through your application (recommended method).
- Use the printer's control panel (Administration/Engine/Image Alignment menu).
- Use the PostScript **translate** and **scale** operators to reduce image size and change its placement on the page (requires PostScript programming knowledge).

Output Tray

The single face-down output tray has a capacity of 250 sheets of 20 lb (75 g/m^2) bond paper.

Media

- Try printing your data on a plain sheet of paper first to check placement.
- Test any stock thicker than 24 lb bond (90 g/m²) to ensure that its performance is acceptable. You should test the number of sheets of thick stock a media tray can hold to ensure that its performance is acceptable.
- Select single user job mode or network job mode to specify either plain paper, thick stock, transparencies (and sometimes other).
- Select the print mode to specifiy either Automatic or Thick Stock.

Why have two different job modes?

Network mode is designed to get a printer printing on the network, so that print jobs are not held up by requested media changes. If the printer does not sense a requested media type (such as transparency) in the inputbin selected in the driver, it will continue and print the job on plain paper. If the requested media type from the driver matches the media type set for the inputbin, the job will print on the requested media type.

Single user mode is designed to allow a printer to stop and request a specific media type (such as transparency or thick stock) when requested by the driver, regardless of the current media type in the inputbin. This allows more flexibility in the individual print job but it can bottleneck the printing process if the printer is waiting for a media change and the user does not physically go to the printer and make the change. Since MINOLTA-QMS printers use a First-In First-Out order in job processing, all print jobs will be paused, waiting for the media change.

Which job mode is best?

The specific job mode that is best will depend upon your particular network environment. If getting your jobs printed in a timely manner is most important, use network mode. If getting your jobs printed on the requested media is most important, use single user mode.

What are the two different print modes?

The available print modes are Automatic and Thick Stock.

Which print mode is best?

The Automatic and Thick Stock modes are media dependent. Thick Stock (for example thicker paper, transparencies, and glossy stock) runs the

engine at half speed, allowing more toner coverage. This would be more appropriate for graphics type applications.

What are the media types allowed?

Plain Paper

Input	**Tray**	Universal Letter/A4 (optional) Lower feeder unit (up to two optional)
	Capacity	**Universal or letter/A4:** 250 sheets of 20 lb bond (75 g/m²) paper; capacity for other weights varies accordingly. **Lower feeder unit (each):** 500 sheets of 20 lb bond (75 g/m²) paper; capacity for other weights varies accordingly.
Orientation	**Simplex**	Face up
	Duplex	Face down
Type	■ Any standard or recycled office paper suitable for plain-paper laser printers, such as – Hammermill Laser Print – Weyerhaeuser First Choice – Xerox 4024 ■ Letterhead/memo paper	
Weight	**Plain paper**	16–24 lb bond (60–90 g/m²)
Print Mode to Select	Automatic (plain paper)	
Duplexing	Supported up to 28 lb bond (105 g/m²). See “Duplexing” on page 47.	

Envelopes

Input	**Tray**	Universal or letter/A4
	Location	Standard upper media tray only (with feeder)
	Capacity	Up to 15, depending on the thickness of the envelopes

Orientation	Face up
Type	■ Use common office envelopes with diagonal joints, sharp folds and edges, and ordinary gummed flaps, such as – Commercial #10: Great White Laser – International DL: Great White Laser
Weight	16–24 lb bond (60–90 g/m²)
Print Mode to Select	Thick stock
Duplexing	Not supported
Notes	■ Print on the front side only. Some parts of the envelope consist of three layers of paper—the front, back, and flap. Anything printed in these layered regions may be lost or faded. ■ Printing on envelopes requires an envelope feeder in the upper media tray. ■ You can print envelopes from the upper media tray only. ■ Use envelopes approved for laser printing. ■ You can print *only* on the address side of the envelope. ■ Envelopes should be dry. Do not preseal envelopes.

Glossy Media

Input	**Tray**	Upper media tray only
	Capacity	Up to 50 sheets, depending on the thickness of the media
Orientation	**Upper Tray Only**	Face up
Type	■ Use only glossy media recommended for laser printers, such as – Warren Spectratech Lustro Laser Gloss 80 lb (188 g/m²) 1218, 1219	
Weight	Up to 80 lb book (163 g/m²)	
Print Mode to Select	Thick stock	
Duplexing	Not supported	

Labels

Input	**Tray**	Upper media tray only
	Capacity	Up to 50 sheets, depending on the thickness of the labels
Orientation	Face up	
Type	■ Use only labels recommended for laser printers, such as – Avery 5260	
Weight	24–42 lb (90–157 g/m²)	
Print Mode to Select	Thick stock	
Duplexing	Not supported	
Notes	■ Avoid using labels with exposed adhesive; it may stick to internal printer parts, causing labels to peel off and media jams to occur. ■ Adhesive label stock is supported only in letter or A4 sheets. ■ A label consists of a face sheet (the printing surface), adhesive, and a carrier sheet – The adhesive and carrier sheet must withstand the fusing temperature (392° F/200° C). – The face sheet must follow the plain paper specifications on “Media Storage and Handling” on page 30. – The face sheet surface must cover the entire carrier sheet, and no adhesive should come through on the surface. ■ You can print continuously with label paper. However, this could affect the media feed, depending on the media quality and printing environment. If problems occur, stop the continuous print and print one sheet at a time.	

Letterhead and Memo Media

Input	**Tray**	Universal Letter/A4 (optional) Lower feeder unit (standard on DP model)
	Capacity	**Universal or letter/A4:** 250 sheets of 20 lb bond (75 g/m²) paper; capacity for other weights varies accordingly. **Lower feeder unit:** 500 sheets of 20 lb bond (75 g/m²) paper; capacity for other weights varies accordingly.
Orientation	**Simplex**	Face up
	Duplex	Face down
Type	■ Any standard or recycled office paper suitable for plain-paper laser printers, such as – Hammermill Laser Print – Weyerhaeuser First Choice – Xerox 4024	
Weight	**Plain paper**	16–24 lb bond (60–90 g/m²)
	Thick stock	24-43 lb (90-163 g/m²)
Print Mode to Select	**Plain paper**	Automatic
	Thick stock	Thick stock
Duplexing	Supported	

Postcards (Japanese size)

Input	**Tray**	Upper media tray only
	Capacity	Up to 50 sheets, depending on the thickness of the postcards
Orientation	Face up	
Type	Use only Japanese-sized postcards 3.9 x 5.8" (100 x 148 mm) recommended for laser printers.	
Weight	16–90 lb (60–163 g/m²)	

Print Mode to Select	Thick stock
Duplexing	Not supported
Notes	■ Printing on Japanese-sized postcards requires a postcard feeder in the upper media tray. ■ If the postcard is warped, press on the warped area before putting it in the postcard feeder.

Thick Stock

Input	**Tray**	Upper media tray only
	Capacity	Up to 50 sheets, depending on the thickness of the media
Orientation	**Simplex**	Face up
	Duplex	Face down
Type	■ Warren Spectratech Index 90 lb (163 g/m²) 3009, 3010 ■ Hammermill ColorCopyCover 122254-9 ■ Weyerhaeuser Cover/Card 8215	
Weight	**Simplex**	24–43 lb bond (90–105 g/m²)
	Duplex	24 lb (90 g/m²) to 28 lb (163 g/m²) bond
Print Mode to Select	Thick stock	
Duplexing	Not supported	
Notes	■ 43 lb (163 g/m²) bond is also referred to as 90 lb index stock. ■ Do not mix thick stock with any other media in the media tray, as this will cause printer jamming.	

Transparencies

Input	**Tray**	Upper media tray only
	Capacity	Up to 50 sheets, depending on the thickness of the transparencies *If you have problems feeding 50 sheets, try loading only 5–10 sheets at a time. Loading a large number of transparencies at a time may cause static buildup, thus causing feeding problems.*

Orientation	Check your transparency media instructions to confirm if the media should be placed in the tray long-edge fed with the non-striped edge first and striped side down.
Type	Use any full-color transparencies (also known as OHP film) that meet normal photocopier standards. We recommend ■ Q-Media Transparency Media for the magicolor 6100 series for color printing ■ 3M CG3700 ■ 3M CG3710 ■ Xerox 3R3117 ■ Xerox 3R5764
Weight	24–41.75 lb (90–157 g/m²)
Print Mode to Select	Automatic **Also, select Transparency in the driver.**
Duplexing	Not supported
Notes	■ Remove transparency media as soon as possible from the output tray to avoid built-up static. ■ If you touch the face of transparencies with your bare hands, print quality may be affected. ■ Do not handle transparency media too much. Do not fan transparency media before loading it. Resulting static electricity may cause printing errors. ■ Keep the media path clean. Transparencies are especially sensitive to a dirty media path. If there are shadows on either the top or the bottom of the sheets, see “Cleaning the Printer Interior” in the *Maintenance Guide.* ■ You can print continuously with transparencies. However, this could affect the media feed, depending on the media quality and printing environment. If problems occur, stop the continuous print and print one sheet at a time. ■ Use transparencies that can withstand the fusing temperature (392° F/200° C).

Where can I get more information?

See your application documentation for specific information on formatting data and printing.

For information about media recommended for your printer, go to www.minolta-qms.com/support, then click on Answer Base, or contact Technical Support. See the *Service & Support Guide* for a complete listing of support telephone numbers.

Loading Media

How do I prepare and load the media?

Preparing the Paper

1 Take off the top and bottom sheets of a ream of paper. Holding a stack of approximately 250 sheets at a time, fan the stack to prevent static buildup for the paper before inserting it in a tray.

Do not fan transparency media.

Don't unwrap the paper above the printer, as this might cause paper particles to fall into the printer.

Refilling the Media Tray

The illustrations show a universal media tray; however, instructions are the same for a letter/A4 media tray.

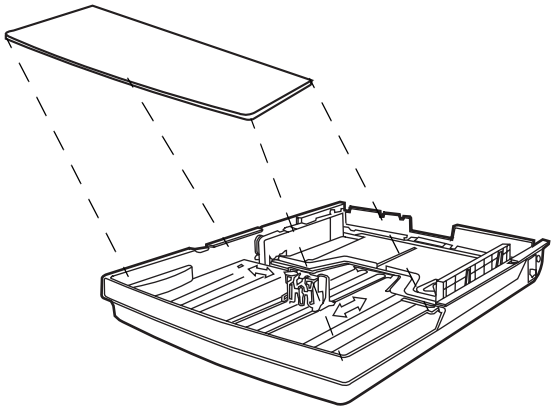
Attention

Do not mix media of different sizes, types, or weights, as this will cause printer jamming.

1 Remove the media tray from the printer.

When refilling media, first remove any media remaining in the tray. Stack it with the new media, even the edges, then reload it. Although the magicolor 6110 was designed for printing on a wide range of media types, it is not intended to print exclusively on a single media type except plain paper. Continuous printing on media other than plain paper (such as envelopes, labels, thick stock, or transparencies) may adversely affect print quality or reduce engine life.

2 If you need to open the transparent dust cover to load oversize media, replace it before sliding the media tray back into the printer.

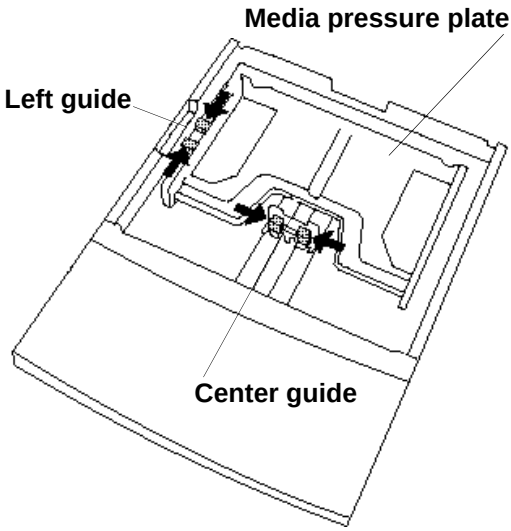


3 Adjust the media guides to fit the size paper you're loading.

Squeeze the retainers at the ends of the left guide and the center guide, carefully move the guide to the appropriate location (media sizes are listed on the tray), and release the retainers.

Setting the guides for the wrong size media may affect print quality.

The media pressure plate will automatically lock into position when the media is loaded.



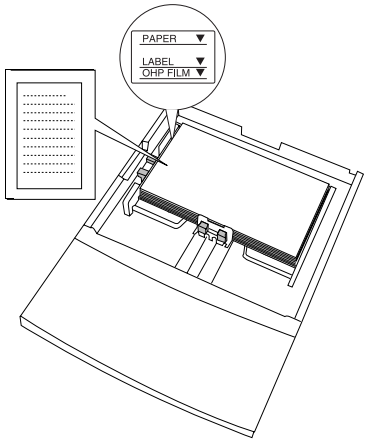
Attention

The paper should fit easily between the guides. Make sure the paper corners are not bent. Improperly adjusted guides may cause poor print quality, media jams, or printer damage. Do not overfill the tray.

4 Load the media face-up with its top toward the right of the tray and the long edge toward the printer.

A fill limit mark is provided on the inside left side of the tray. The standard upper media tray holds 250 sheets of 20 lb bond (75 g/m²) paper. The optional lower feeder unit media tray holds 500 sheets of 20 lb bond (75 g/m²) paper.

Often, an arrow on the media package label indicates the printing-side of the media.



Attention

If necessary, readjust the media guides after inserting the media. Improperly adjusted guides may cause poor print quality, media jams, or printer damage.

5 Slide the media tray back into the printer.

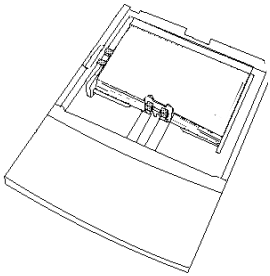
Loading and Printing Letterhead and Memo Media

1 In the printer driver (Paper tab, Paper Type option), select Automatic.

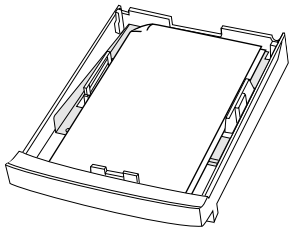
2 Remove the media tray from the printer (and remove any media in the tray).

3 Load the new media.

Universal tray



Letter/A4 tray



If you are using the universal tray and are printing simplex (one-side per sheet) (long-edge first), l oad the media printing-side up with the top of the media (the letterhead or memo information) on the right side of the tray. If you're using the optional letter/A4 tray and are printing simplex short-edge first, load the media printing-side up with the top of the media (the letterhead or memo information) toward the back of the tray.

4 Slide the media tray back into the printer.

Duplexing

How do I duplex?

Manual Duplexing

To manually duplex, remove the media, flip it over, and reload it.

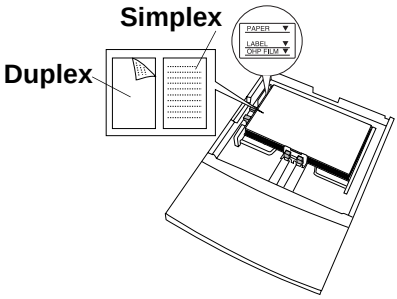
If you can't determine which side of the media to print on, remove the media from the tray, rotate the stack 180°, turn the stack over, and then place it back in the tray.

Autoduplexing

Duplex (2-sided) printing can be done automatically with the optional duplex unit installed.

Only up to 28 lb bond (105 g/m²) plain paper can be autoduplexed.

1 When printing duplex (both sides of sheet) long-edge first from the universal tray, load the media printing-side down with the **top** of the media (or letterhead or memo information) toward the right side of the tray. If you want to print duplex (both sides per sheet) from the letter/A4 tray (short-edge first), load the media printing-side down with the **top** of the media toward the back of the tray.



In autoduplexing, side B (the back side) is printed first and side A (the front side) is printed last.

2 Set the driver—for example:

a Make sure you have selected the Optional Duplexer as an installed option in the printer driver.

b In Duplex Options, select Long Edge (flipped horizontally as in a loose-leaf notebook), or Short Edge (flipped vertically as on a clipboard) as the Duplex option.

You can select to **duplex** *with the Short Edge option on media that is* loaded *in the media tray with the long edge as the leading edge and vice versa.*

3 Click OK.

The duplex unit accessory requires at least one lower feeder unit installed.

Using Media Other Than Plain Paper

Attention

Although the magicolor 6110 was designed for occasional printing on a wide range of media types, it is not intended to print exclusively on a single media type except plain paper. Continuous printing on media other than plain paper (such as envelopes, glossy stock, labels, thick stock, or transparencies) may adversely affect print quality or reduce engine life.

For media other than standard plain paper or transparencies, both the driver (Paper tab, Paper Type option) *and* the Media key on the Control Panel need to be selected to tell the printer that thick stock is loaded. It is important to use the Media key to set the tray to the appropriate media type in order to obtain optimum printing results and to enable the toner to adhere better.

Loading and Printing Envelopes

1 In the printer driver (Paper tab, Paper Type option), select Thick Stock.

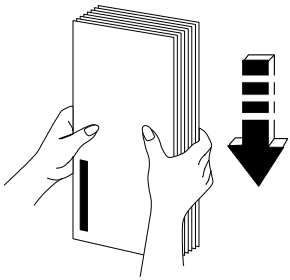
2 On the control panel, press the Media key to select printing on thick stock, if necessary.

3 Place the envelopes on a flat surface, and flatten them by pressing down the corners.

4 Flex the envelope stack (including the edges) to remove any stiffness.

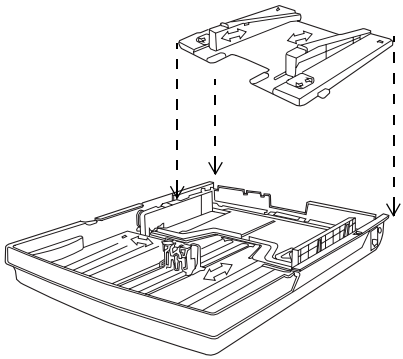
5 Correct any bent corners, and then tap the envelopes on a flat surface to align them.

6 Remove the upper media tray from the printer (and remove any media in the tray).



7 Install the envelope feeder onto the upper media tray as shown.

The envelope feeder can be installed only in the upper media tray.



8 Adjust the media guides to the length and width of the envelopes.

Make sure the guides are snug enough to keep the envelopes straight, but not so tight that they buckle the envelopes.

9 Place the envelope stack into the tray with the printing-side up.

Check your application documentation to determine if the flap should be placed on the left or on the right. You can also print a single envelope to check the orientation before printing multiple copies.

10 Slide the media tray back into the printer.

11 Open the flap of each envelope immediately (before it cools) after the envelope is delivered to the output tray.

Because the envelopes pass through heated rollers, the gummed area on the flaps may seal. Using envelopes with emulsion-based glue avoids this problem.

Loading and Printing Thick Stock (Including Glossy Media and Labels)

Attention

Do not mix thick stock with any other media in the same tray, as this will cause printer jamming.

1 In the printer driver (Paper tab, Paper Type option), select Thick Stock.

2 On the control panel, press the Media key to select printing on thick stock, if necessary.

3 Remove the upper media tray from the printer (and remove any media in the tray).

4 Load the new media.

If your label stock has a top-of-page, place the top-of-page toward the right side of the tray.

5 Slide the upper media tray back into the printer.

6 In the Operator Control/Media/For Upper Bin menu, select Thick Stock.

Loading and Printing Transparencies

1 In the printer driver (Paper tab, Paper Type option), select Automatic.

The printer automatically senses that transparencies are present.

2 On the control panel, press the Media key to select printing on automatic, if necessary.

3 Remove the upper media tray from the printer (and remove any media in the tray).

Attention

Do not leave paper in the tray, or the printer will not automatically sense that transparencies are present.

4 Load the new media.

5 Slide the upper media tray back into the printer.

Print Media and Your Warranty

Use of of nonsupported print media may cause damage to your printer and void your warranty. If MINOLTA-QMS printer failure or damage is found to be directly attributable to the use of non-MINOLTA-QMS print media, MINOLTA-QMS will not repair the printer free of charge. In this case, standard time and material charges will be applied to service your printer for that particular failure or damage.

Where can I get more information?

Check with our web site www.minolta-qms.com for a list of current approved media. See the *Service & Support Guide* for a complete listing of support numbers.

3 Maintaining the Printer

Maintaining the Printer

- Handle the printer with care to preserve its life. Abuse may cause damage.
- Read all caution and warning labels carefully, making sure to follow any instructions contained in them. These labels are located on the inside of the printer's covers and the interior of the printer body.
- Always close the printer covers gently. Never expose the printer to vibrations.

Attention

If you have an optional duplex unit installed, always open the duplex unit's top cover before opening the printer's top cover.

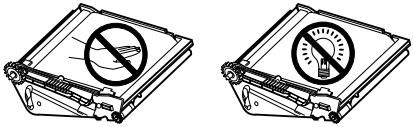
- Lift the printer from the bottom only, using the carrying grips under each side corner. Make sure two people are available to lift the printer when moving it.

Attention

Never lift a printer with the fuser oil bottle installed.

- Do not place anything on the top of the printer.
- When removing an OPC belt cartridge, you must first open the printer's front cover.

Attention



The OPC belt is extremely sensitive to bright light, direct sunlight, and touch. Always leave it in its protective box until you're ready to install it. Any exposure to light should be limited to less than two minutes, or permanent damage could result. Also, handle the cartridge carefully so you don't touch the surface (the green part) of the belt.

- Do not leave the printer's covers open for any length of time, especially in well-lit places; light may damage the OPC belt cartridge.
- Do not open any cover of the printer **during** printing.
- Do not cover the printer immediately after using it. Turn it off and wait until it cools down.
- Do not tap paper stacks on the printer.

- Do not tilt, lubricate, or disassemble the printer.

  For best output quality and longest consumables life, keep the printer on a hard, flat, level (within 1.5°) surface capable of supporting about 119 lbs (53.9 kg). A surface can be tested for levelness with a standard round pencil. If the pencil rolls, the surface is not level.

- Do not touch the electrical contacts, gears, or laser beam devices. Doing so may damage the printer and cause the print quality to deteriorate.
- Keep media in the output tray at minimum level. If the media stacks too high, your printer may experience media jams, excessive media curl, or built-up static.
- Clean any paper dust and toner buildup from the inside of the printer.

Attention

While the cartridges may appear not to be fully inserted, gently closing the front cover will guide them to their proper operating position.

The toner is nontoxic. If you get toner on your skin, wash it off with cool water and neutral detergent. If you get toner on your clothes, lightly dust them off as much as possible. If some toner remains on your clothes, use cool, not hot water, to rinse the toner off, provided your clothing is washable.

WARNING!

If you get toner in your eyes, wash it out immediately with cool water and consult a doctor. Material Safety Data Sheets (MSDS) information can be found at www.minolta-qms.com (click on the Answer Base).

ACHTUNG! Sollte Toner in Ihre Augen gelangen, die Augen unbedingt sofort mit kaltem Wasser ausspülen und einen Artzt aufsuchen. MSDS-Informationen (Material Safety Data Sheets; Datenblätter zur Materialsicherheit) finden Sie im Internet unter www.minolta-qms.com (klicken Sie auf “Answer Base”).

Cleaning

Use	Avoid
A soft **dry** cloth to clean the control panel	Sharp or rough implements (such as wire or plastic cleaning pads) Any liquid
A soft **damp** cloth to clean the printer	Sharp or rough implements (such as wire or plastic cleaning pads)
Mild detergent to clean the printer (*always test any cleaning solution [such as a mild detergent] on a small area of your printer to check the solution's performance*)	Abrasive or corrosive solutions that contain solvents (such as alcohol or benzine); aerosol or pump-sprayed cleaners

Cleaning Schedule

This item needs cleaning...	After...	By...
Printer interior	Every 30,000 single-sided pages, every 12 months, or as needed, whichever comes earlier.	User See the *Maintenance Guide.*
Transfer unit (transfer roller, registration roller, paper discharger/wire)		
OPC belt cartridge		
Paper guides in printer and duplex unit		
Paper exit rollers		
Duplex unit		
OPC charge wire (corona wire)	Every 30,000 images, every 12 months, or as needed, whichever comes earlier; or whenever dark vertical streaks appear on printed pages.	
Laser lens	Every 30,000 single-sided pages, every 12 months, or as needed, whichever comes earlier; or when you find vertical white or light-colored streaking in all primary colors on printed pages.	
Printer exterior	As needed.	

Make sure any parts removed during cleaning are replaced before you plug in the printer.

Cleaning the Printer

WARNING!

Turn off the printer, unplug the power cord, and disconnect all interface cables before cleaning.

ACHTUNG! Ziehen Sie den Netzstecker aus der Steckdose bevor Sie den Drucker reinigen.

Regular cleaning takes only a few minutes and helps ensure printer performance and print quality. You need to clean both the inside and outside of the printer. Keep the following guidelines in mind:

- Be careful when cleaning the inside or removing paper jams, as the fuser unit and other internal parts may become very hot. Either clean the printer before use, or allow time after unplugging it to allow the fuser unit to cool down.

Attention

The fuser unit is hot. When the top cover is opened, the fuser unit temperature drops gradually (one hour wait time).

If the printer has a duplex unit installed, always open the duplex unit's top cover before opening the printer's top cover.

- Use a soft cloth to clean the printer.

WARNING!

Do not spill water or detergent into the printer; otherwise the printer will be damaged and an electric shock may occur.

ACHTUNG! Verchütten Sie kein Wasser oder andere Flüssigkeiten auf dem Drucker, da das Gerät sonst beschädigt wird oder die Gefahr eines elektrischen Schlages besteht.

- Never spray cleaning solution directly on the printer's surface; the spray could penetrate through the air vents of the printer and damage the internal circuits.

- Avoid using abrasive or corrosive solutions or solutions that contain solvents, (such as alcohol and benzene) to clean the printer.
- Always test any cleaning solution (such as mild detergent) on a small area of your printer to check the solution's performance.
- Be careful when cleaning the inside or removing paper jams, as the fuser assembly and other internal parts become very hot. Open the printer cover, and let the interior of the printer cool before handling the inside of the printer.
- Read all caution and warning labels carefully, making sure to follow any instructions contained in them. These labels are located on the inside of the printer's covers and the interior of the printer body.

See Chapter 7, "Repacking the Printer," for printer storing and shipping instructions.

Guidelines for Cleaning Inside the Printer

- Either clean the printer before use, or allow a few minutes after unplugging it to allow the fusing unit to cool down.
- Turn off the printer, unplug the power cord, and disconnect all interface cables before cleaning inside the printer.
- Read all caution and warning labels carefully, making sure to follow any instructions contained in them. These labels are located on the inside of the printer's covers and the interior of the printer body.
- Use only dry, lint-free cotton cloths or swabs.
- Make sure any parts removed during cleaning are replaced before you plug in the power cord, reconnect the interface cables, and turn on the printer.

Cleaning the Transfer Unit

These items in the transfer unit require cleaning:

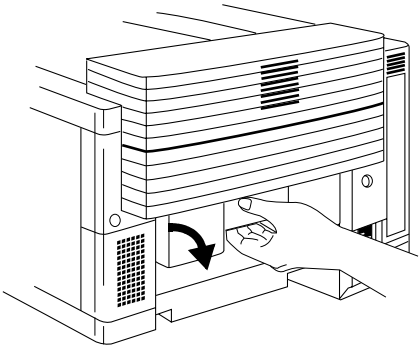
- Registration rollers
- Transfer roller
- Paper discharge

A dry cotton cloth and dry cotton swab are required for these procedures.

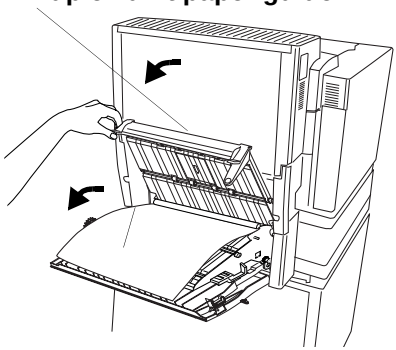
1 Turn off and unplug the printer.

2 Open the printer's rear cover.

If your printer has a duplex unit installed, you can access the printer's rear cover by opening the duplex unit's rear cover and paper guide.

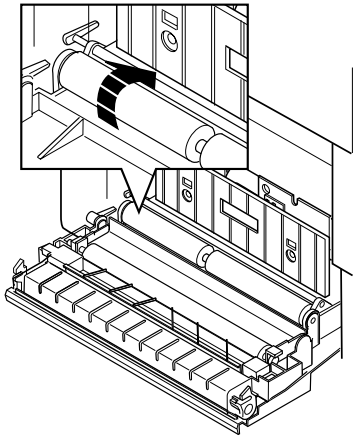


Duplex unit paper guide

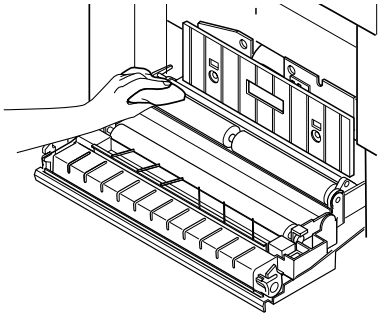


3 Using a dry cotton cloth, clean any paper dust and toner buildup from the registration rollers.

You can manually rotate the rollers while cleaning them by turning the gear on the left end of the roller shaft.

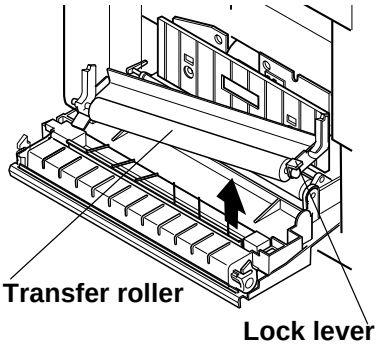


4 Clean the transfer roller.



a Remove the transfer roller unit by lifting the lock lever at the right end of the transfer roller unit until the unit is freed, and then lifting the unit out.

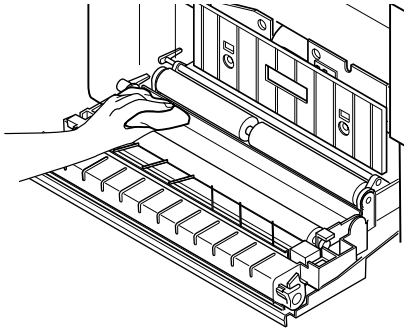
Because you cannot see when the unit is released, it's best to lift the unit and the lock lever at the same time.



b Using a dry cotton cloth, clean any paper dust and toner buildup from the transfer roller.

Manually rotate the roller while cleaning it.

c Reinstall the transfer roller in the transfer unit.

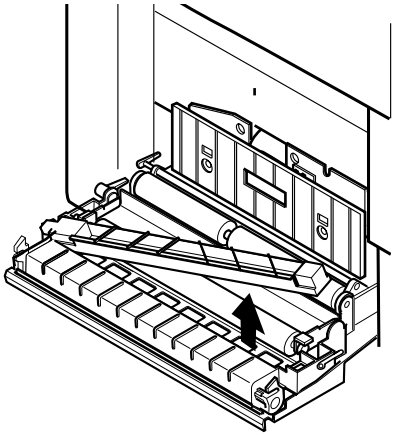


4 Clean the paper discharger.

a Remove the paper discharger by pushing it to the right and then lifting it up and out of the transfer unit. (It comes out after the tabs on the charger have cleared their retainers.)

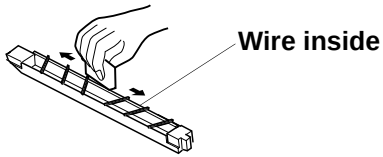
b Using a dry cotton cloth, clean any paper dust and toner buildup from the outside of the paper discharger.

c Using a dry cotton swab, clean any paper dust and toner buildup from the interior of the paper discharger.



d Using a dry cotton swab, clean the paper discharger wire.

e Reinstall the paper discharger in the transfer unit, and then push it down and to the left to lock it in place.



6 Clean any paper dust and toner buildup found on the transfer unit itself.

7 Close the printer's rear cover.

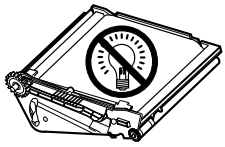
If you have a duplex unit installed, close the duplex unit's rear cover and paper guide.

8 Plug in the printer, and turn it on.

In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

Cleaning the OPC Belt Cartridge

Attention



The OPC belt is extremely sensitive to touch. Always handle the cartridge so you don't touch the surface of the belt. Any body oil left on the surface of the belt will prevent toner from adhering to the belt which results in poor image quality. Also, keep the cartridge away from anything that may scratch the surface of the belt. Any scratches will show in the image produced.

The OPC belt is also extremely sensitive to bright light and direct sunlight. Always leave it in its protective bag until you are ready to install it. Any exposure to light should be limited to two minutes. If you suspect the belt is damaged due to exposure to light, put the belt in a dark place to recover. Depending on the amount of exposure, recovery may take up to two hours. Recovery time is dependent on the amount of exposure sustained. Recovery is not guaranteed.

When the top cover is opened, the fuser unit temperature drops gradually (one hour wait time). Do not replace the OPC belt cartridge until you are sure that the fuser unit has cooled down.

If you have installed a duplex unit, it must be opened before the printer's top cover.

A dry cotton cloth is required for this procedure.

1 Turn off and unplug the printer.

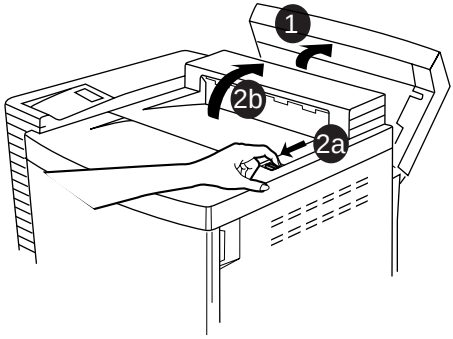
WARNING!

The fuser unit can become extremely hot and cause severe burns. Make sure the unit is cool before handling it.

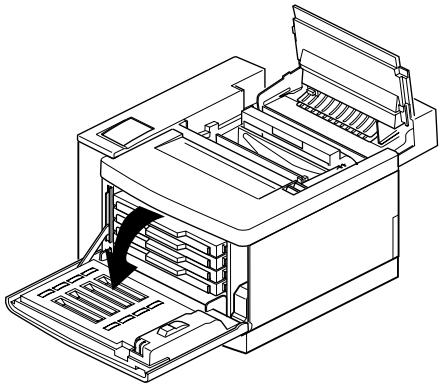
ACHTUNG! Die Fixiereinheit kann sehr heiß werden, so daß Verbrennungsgefahr besteht. Bitte lassen Sie die Fixiereinheit einige Zeit abühlen, bevor Sie diese berühren.

2 Open the top cover.

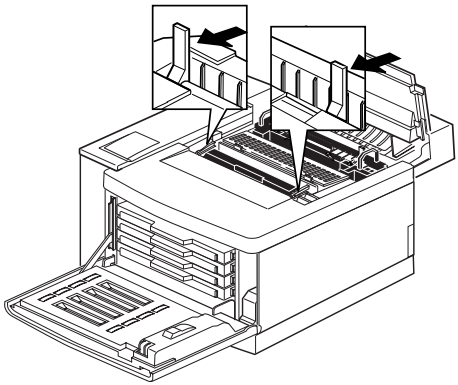
The illustrations for step 3 and step 4 show the printer without the duplex unit. However, the instructions are the same for all models.



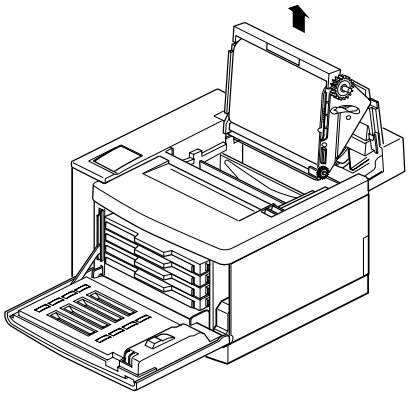
3 Open the printer's front cover



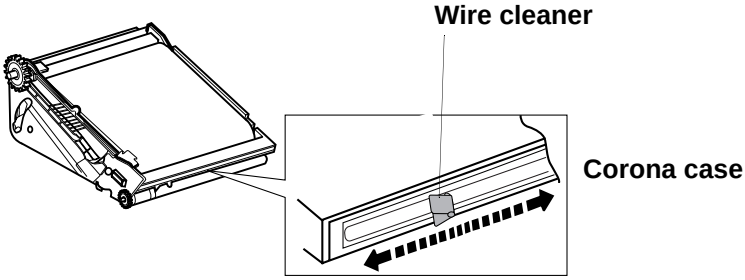
4 Release the OPC belt cartridge lock levers.



5 Remove the OPC belt cartridge.



6 Clean the corona wire using the built-in wire cleaner attached to the corona case.

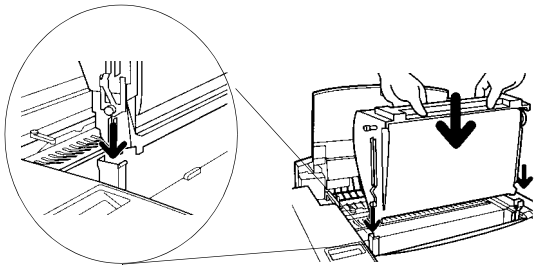


While pinching the two tabs of the wire cleaner together, slide the wire cleaner to both ends of the corona case.

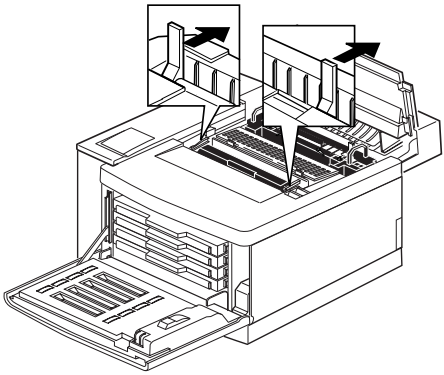
Attention

Failure to return the wire cleaner to its home position (marked by an arrow on the corona case), may degrade print quality.

7 Reinstall the OPC belt cartridge.



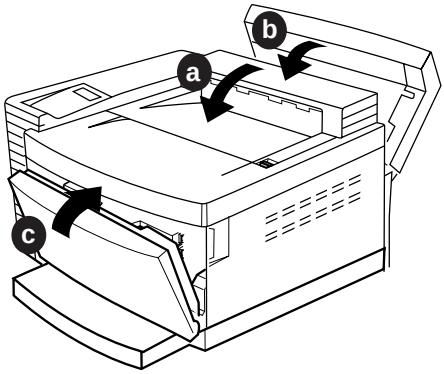
8 Secure its lock levers.



9 Close the printer's top cover.

If you have a duplex unit installed, close its top cover.

10 Close the printer's front cover.



Cleaning the Laser Lens

It's necessary to clean the laser lens only when you find vertical white or light-color streaking in all primary colors on your printouts.

A dry cotton cloth or dry cotton swab is required for this procedure.

1 Open the printer's front cover.

2 Remove the four toner cartridges.

3 Open the laser lens cover.

4 Release the two tabs on the front edge of the lens cover and rotate the hinged lens cover toward the rear of the printer.

This will allow enough access room to clean the lens without the need of parts removal.

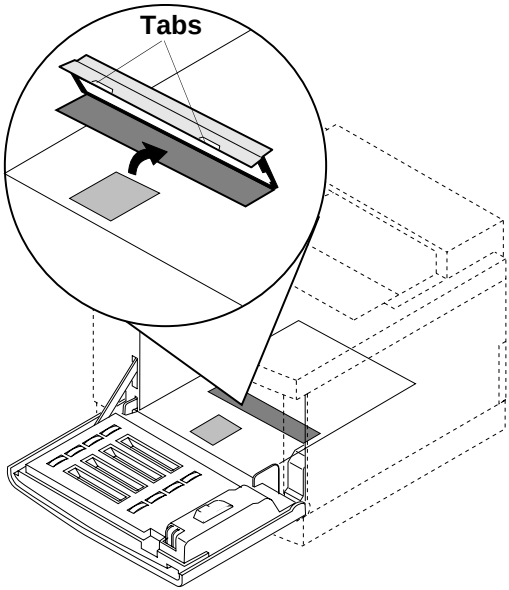
5 Using a dry cotton cloth, wipe the lens.

6 Close the laser lens cover by rotating it toward the front of the printer.

The two tabs should snap back into place.

7 Reinstall the four toner cartridges.

8 Close the printer's front cover.



Cleaning the Exterior of the Printer

WARNING!

Turn off the printer, unplug the power cord, and disconnect all interface cables before cleaning. Do not spill water or detergent into the printer; otherwise the printer will be damaged and an electric shock may occur.

ACHTUNG! Ziehen Sie den Netzstecker aus der Steckdose bevor Sie den Drucker reinigen. Verschütten Sie kein Wasser oder andere Flüssigkeiten auf dem Drucker, da das Gerät sonst beschädigt wird oder die Gefahr eines elektrischen Schlages besteht.

To protect your printer and maintain its appearance, clean the exterior regularly. Use the following guidelines:

- Use only a dry or slightly damp, lint-free, soft cloth moistened only with water or mild detergent.
- Never use cleaning solutions that contain solvents, such as alcohol and benzene. Solvents may damage the printer's finish.
- Always test any cleaning solution on a small area of your printer to check the solution's performance.

- Never use sharp or rough implements, such as wire or plastic cleaning pads.
- Never spray a cleaning solution directly on the printer as the cleaning solution will penetrate to the interior of the printer and cause damage.

Maintenance Schedule

Preventive Maintenance Schedule

Printer needs preventive maintenance after...	**When...**	**By...**
30,000 pages	`30K MAINTENANCE` displays in the message window.	User See “Cleaning Schedule” on page 54.
240,000 pages	`240K MAINTENANCE` displays in the message window.	
120,000 pages	`120K CHECKUP` displays in the message window.	

Replacement Schedule

This item needs replacing...	**After...**	**By...**
Cleaning roller	`REPLACE FUSER CLEANER` displays in the message window (after 20,000 pages at 5% coverage of each color).	User See “Replacing the Fuser Oil Bottle and Cleaning Roller.”
Fuser oil bottle	`CHECK CLEANING ROLLER` displays in the message window (after approximately 12,000 pages; however, fuser oil bottle life is media dependent—coarser paper requires more oil).	User See “Replacing the Fuser Oil Bottle and Cleaning Roller.”

This item needs replacing...	After...	By...
OPC belt cartridge	REPLACE BELT displays in the message window (maximum life—120,000 color planes or 12 months, whichever comes first (usually occurs with continuous use; minimum life (60,000 planes) may occur with job sizes averaging one page although other factors also affect cartridge life.	User See “Replacing the OPC Belt Cartridge.”
Ozone filter	Every 12 months.	User See “Replacing the Ozone Filter.”
Toner	14,000 pages—black; after 8,500 pages—yellow, magenta, cyan @ 5% coverage of each color.	User See “Replacing a Toner Cartridge.”
Waste toner bottle	CHECK WASTE TONER displays in the message window (after 18,000 color planes).	User See “Replacing the Waste Toner Bottle.”
Transfer drum cleaner	240,000 pages.	Service or a MINOLTA-QMS authorized service provider
Fuser unit	REPLACE FUSER displays in the message window (after 100,000 pages maximum at an equal mix of black and 4-color pages, all with 5% coverage of each color; however, fuser unit life is media dependent).	Service or a MINOLTA-QMS authorized service provider
Paper discharger	240,000 pages at 5% coverage of each toner color.	Service or a MINOLTA-QMS authorized service provider
Paper pickup roller and paper separation pad	120,000 pages.	Service or a MINOLTA-QMS authorized service provider

This item needs replacing...	After...	By...
Transfer drum	600,000 color planes.	Service or a MINOLTA-QMS authorized service provider
Transfer roller	240,000 pages at 5% coverage of each toner color.	Service or a MINOLTA-QMS authorized service provider
Notes	Consumable life is expressed in simplex letter/A4 pages. A duplex page is equivalent to two simplex pages.	

4 Troubleshooting

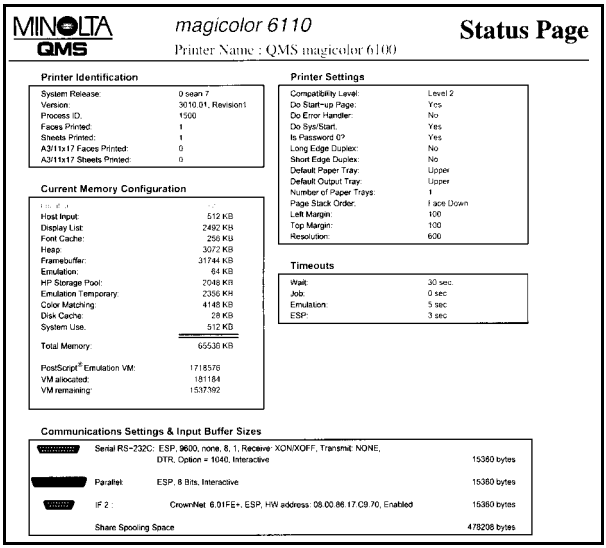
Introduction

This chapter provides information to aid you in resolving printer problems you may encounter, or at least guide you to the proper sources for help.

It also explains automatic jam recovery, discusses how to locate, remove and prevent media jams, presents tables of common status messages, a problem checklist, and actions you should take when a specific problem occurs. You'll also find a problem checklist and the information you'll need to have before placing a service call if one becomes necessary.

Printing a Status Page

Print a status page to verify the printer is printing correctly.



Press Key	(Until) Display Reads
Online	IDLE (and online LED is off)
Menu	OPERATOR CONTROL
Next (▶)	ADMINISTRATION
Select	ADMINISTRATION–COMMUNICATION
Next (▶)	
Select	PRINT STATUS
Next (▶)	ADMINISTRATION-SPECIAL PAGES
Select	YES

Press Key	(Until) Display Reads
Next (▶)	
Select	PRINT STATUS
Next (▶)	
Next (▶)	
Online	IDLE (and online LED is on)

Preventing Media Jams

Make sure that...	Avoid...
Media matches the printer specifications.	Media that is folded, wrinkled, or excessively curled.
Media is flat, especially on the leading edge.	Double feeding *(remove the media and fan the sheets—they may be sticking together).*
The printer is on a hard, flat, level surface.	Fanning transparencies or leaving them in the output tray, since this causes static.
You always adjust the media width regulation guides in the media tray *after* inserting the media *(a guide that is not properly adjusted can cause poor print quality, paper jams, or printer damage).*	Allowing the output tray to overfill *(the face-down output tray has a 250-sheet capacity—jamming may occur if you allow media to accumulate more than 250 sheets at a time).*
You store media in a dry location away from moisture and humidity.	Overfilling the media input trays.
You have the correct media type selected if you're printing on envelopes, glossy stock, labels, thick stock, transfer media, or transparencies.	Loading more than one type/size/weight of media in a tray at the same time.
You load the media (for single-sided pages) printing-side up *(if you can't determine which side of the media to print on, remove the media from the tray, rotate the stack 180°, turn the stack over, and then place it back in the tray).*	

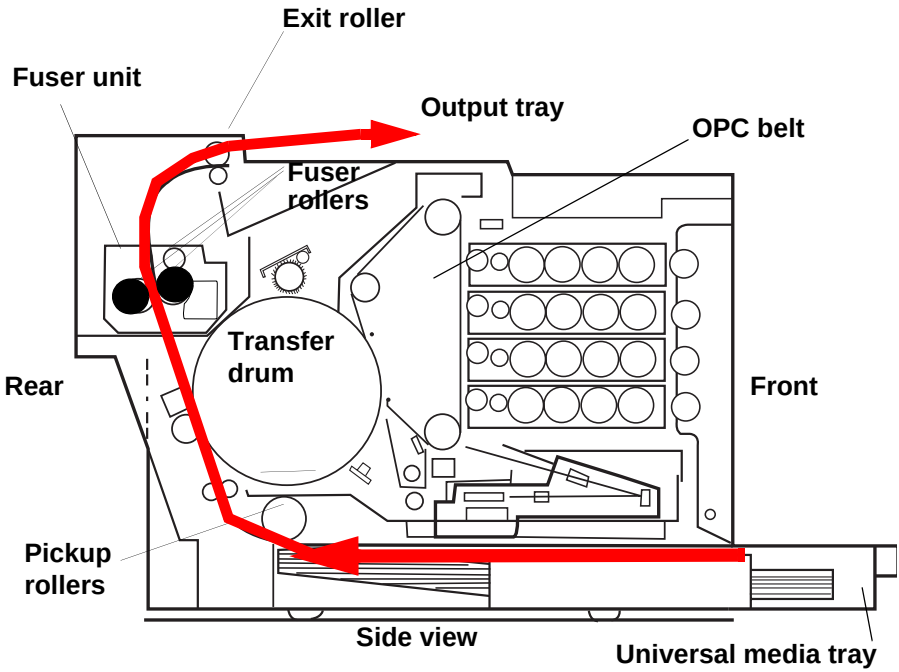
Automatic Jam Recovery

The magicolor 6110 provides automatic jam recovery (when enabled through the Administration/Engine/Page Recovery menu). After you remove any jammed media, printing automatically resumes from the page the printer stopped at when the jam occurred.

For automatic jam recovery to work, it is necessary to leave the printer turned on when you remove the jammed media. After the jam is cleared, open and close the top door before printing. Printing will not resume until you do this.

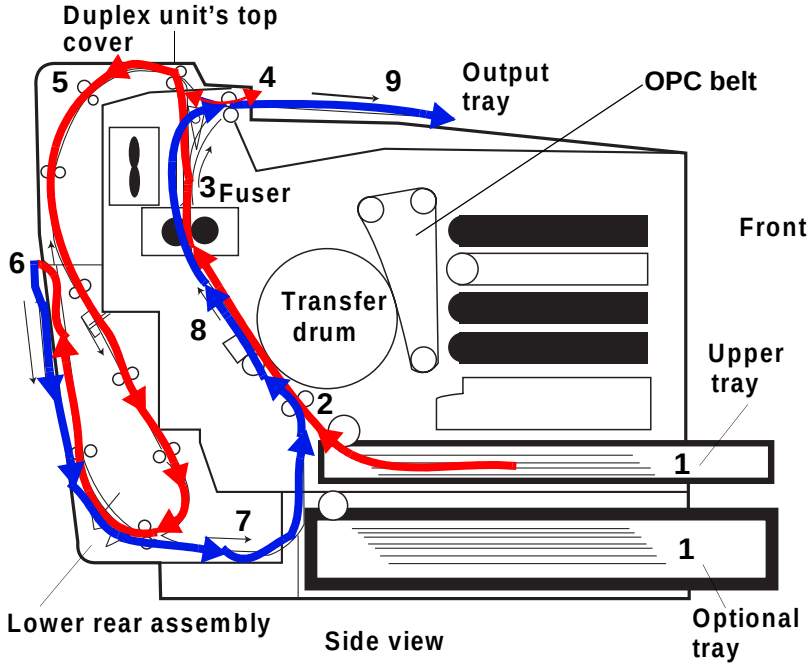
Understanding the Media Path

Understanding the printer's media path will help you locate media jams. The media tray is located at the bottom front of the printer. The media is picked from the cassette, passed under the transfer drum, passed through the fuser, and delivered via the paper exit unit to the media exit tray, which is the top of the printer. Access to the media path, in case of a media jam is through the printer's rear cover.



Media Path with Optional Duplex Unit

Understanding the printer's media path will help you locate media jams. The media tray is located at the bottom front of the printer. The media is picked from the tray (shown as the number 1 on the diagram), passed under the transfer drum (2), passed through the fuser (3), fed into the duplex unit (4, 5) where the media undergoes a change in direction (6), cycles through the transfer drum and fuser again (7, 8), and is delivered via the paper exit unit to the output tray, which is the top of the printer (9). Access to the media path, in case of a media jam is through the duplex unit's and the printer's rear covers.



Since several sheets are cycling through the printer/duplex unit at the same time, recovering from a media jam may require the removal of more than one sheet.

Understanding Media Jam Status Messages

When a jam occurs, the message window on the control panel displays one of four messages: `MISFEED JAM`, `INNER JAM`, `OUTER JAM`, `DRUM JAM`, or `DUPLEX JAM`. Frequent jams in any area indicate that area should be

checked, repaired, or cleaned. Repeated jams may also happen if you're using the wrong weight print media.

- **Misfeed jams** occur in the upper input tray or lower feeder unit(s). A misfeed jam may be as simple as a sheet of media not being picked, or it may be that the media was picked but not fed properly. Access to this area is through the tray slot(s).
- **Inner jams** occur in the transfer drum/transfer unit area. This type of jam means that the media did not make it to the paper exit area. Access to this area is through the printer's (and/or duplex unit's) rear cover (and/or duplex unit's lower rear assembly).
- **Outer jams** usually means that media is stuck in the fuser/media exit area. Access to this area is through the printer's (and/or duplex unit's) top cover.
- **Drum jams** occur if the media winds around the transfer drum. Access to this area is through the printer's (and/or duplex unit's) rear cover.
- **Duplex jams** occur in the duplex unit area on the models with duplex units installed. Access to this area is through the duplex unit's top cover, the duplex unit's rear cover, and the duplex unit's lower rear assembly.

Clearing Media Jams

- To avoid damage, always remove jammed media gently, without tearing it. Any pieces of media left in the printer, whether large or small, can obstruct the paper path and cause further jams.
- To avoid damage to rollers, always remove jammed media gently.
- Do not reload media that has jammed.
- If, after clearing the media jam, the jam message in the control panel window persists, open and close the printer's top cover. This should clear the jam message.

Attention

The image is not fixed on the media before the fusing process. If you touch the printed surface, the toner may stick to your hands, so be careful not to touch the print face when removing the jammed media. Make sure not to spill any toner inside the printer.

Unfused toner can dirty your hands, clothes, or anything else it gets on.

If you accidentally get toner on your clothes, lightly dust them off as much as possible. If some toner remains on your clothes, use cool, not hot water, to rinse the toner off, provided your clothing is washable. If toner gets on your skin, wash it off with water or a neutral detergent.

WARNING!

If you get toner in your eyes, wash it out immediately with cool water and consult a doctor. Material Safety Data Sheets (MSDS) information can be found at www.minolta-qms.com (click on the Answer Base).

ACHTUNG! Sollte Toner in Ihre Augen gelangen, die Augen unbedingt sofort mit kaltem Wasser ausspülen und einen Artzt aufsuchen. MSDS-Informationen (Material Safety Data Sheets; Datenblätter ur Materialsicherheit) finden Sie im Internet unter www.minolta-qms.com (klicken Sie auf "Answer Base").

If, after clearing the media jam, the jam message in the control panel window persists, open and close the printer's covers. This should clear the jam message.

Handling Media Jams by Location

Location of Jam	Page Reference
Tray 1—upper tray Tray 2 or 3—optional tray(s) (lower feeder unit)	page 75
Near OPC belt	page 76
Near duplex unit	page 79
Near fuser unit	page 76

Misfeed Jams

1. Remove the media tray(s).
2. Pull out the jammed media.
3. Shuffle the media currently in the tray(s) and even up the front edges.
4. Ensure that the media is lying flat in the tray(s).
5. Reinsert the media printing face up.

Attention

Make sure the media doesn't exceed the media limit mark. Check to see if the media width guides are correct.

6. Slide the tray(s) back into the printer.
7. Open the front cover, then close it.

   The media jam display is cancelled.

Inner Jams, Outer and Drum Jams

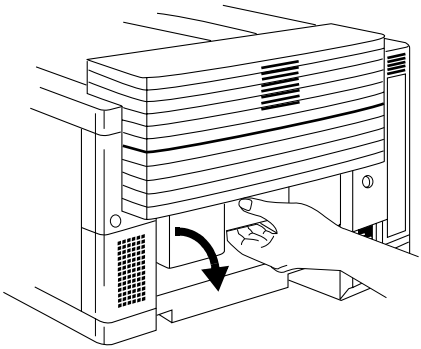
WARNING!

The fuser unit is hot! Do not remove a jam in this area until the fuser unit cools.

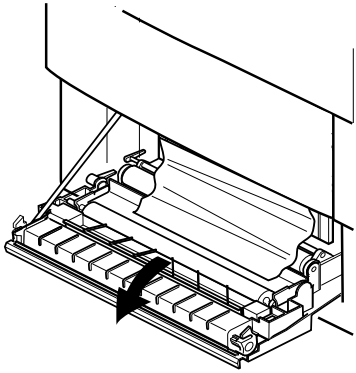
ACHTUNG! Die Fixiereinheit wird sehr heiß! Bitte achten Sie darauf, daß sie diese einige Zeit abkühlen lassen, bevor Sie einen Papierstau beseitigen.

Media that hasn't fully passed through the fuser contains unfused toner that can dirty your hands, clothes, or other items. If you get toner on your hands, wash them in cool water and neutral detergent. If you get toner on your clothes, lightly dust them off as much as possible. If toner remains on your clothes, use cool, not hot water, to rinse the toner off, provided your clothing is washable.

1 Open the rear cover of the printer.

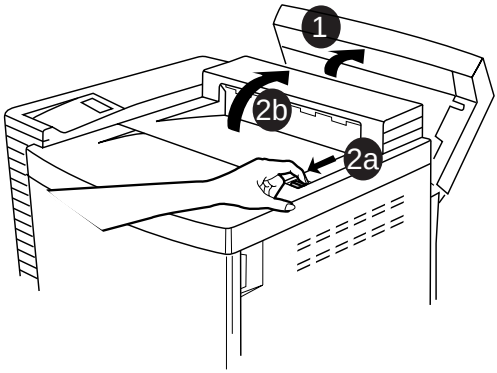


2 Remove the jammed media by pulling it toward you.



3 Close the printer's rear cover.

4 If there still is a jam message and you have a duplex unit installed, open the duplex unit's top cover.



Attention

If you have installed a duplex unit, it must be opened before the printer's top cover.

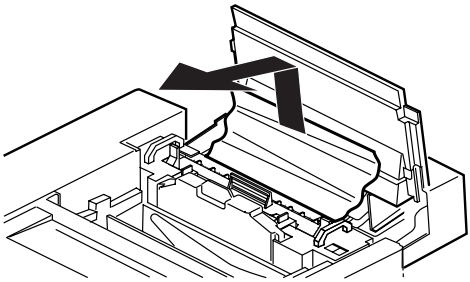
If not, skip to step 5.

5 Open the printer's top cover.

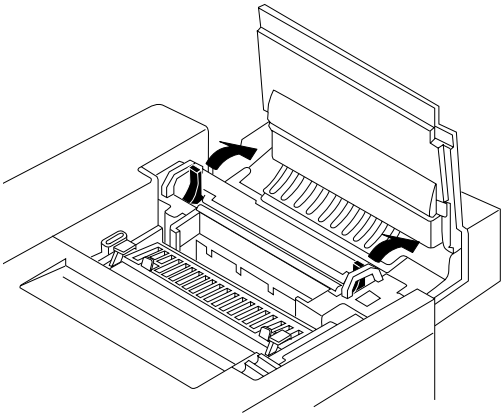
Pull the top latch to release the top cover.

These illustrations show the printer without the duplex unit attached; however, the instructions are the same for all models.

6 Remove the jammed media by pulling it toward you.

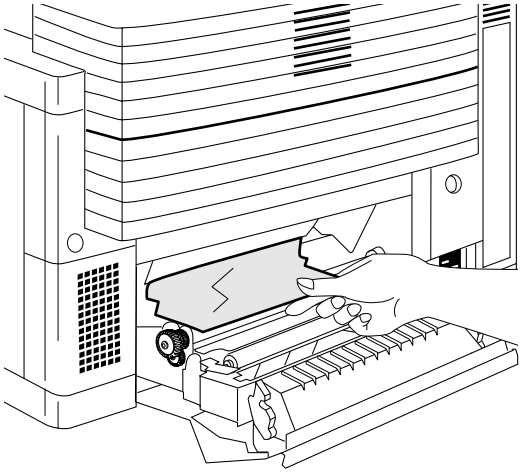


7 If you cannot reach the media from the top of the fuser or the media will not come out easily, open the fuser roller pressure release levers (one at each end of the fuser).



8 Remove the jammed media by pulling it from the bottom of the fuser (through the printer's rear cover), not from the top of the fuser.

This prevents any unfused toner from dirtying the fuser rollers.



Attention

Be careful not to touch the transfer drum while removing jammed media.

9 Close the fuser roller pressure release levers (one at each end of the fuser).

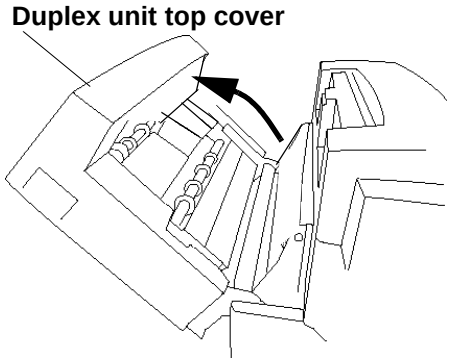
10 Close the top cover of the printer.

11 Close the duplex unit's top cover, if necessary.

12 Close the rear cover of the printer.

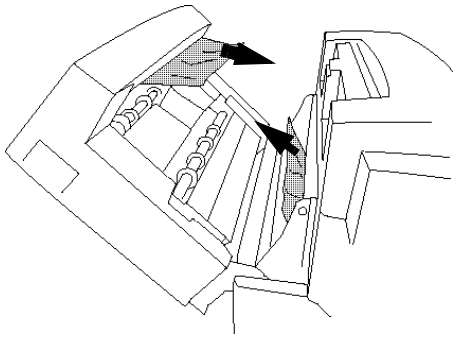
Duplex Unit Jams

1 Open the duplex unit's top cover.



2 Remove the jammed media.

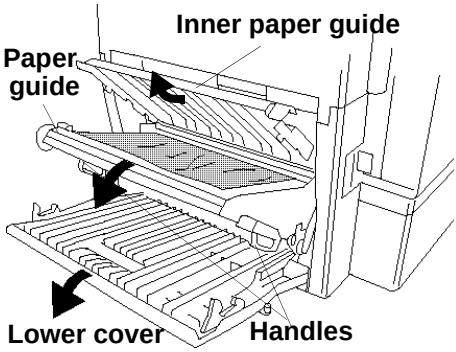
3 Close the duplex unit's top cover.



4 If there still is a jam message, open the duplex unit's lower cover.

5 Remove the jammed media by pulling it toward you.

6 If there still is a jam message, open the duplex unit's lower cover and paper guide. Lift the inner paper guide.



Attention

Hold the paper guide by its handles to avoid catching your fingers between it and the cover.

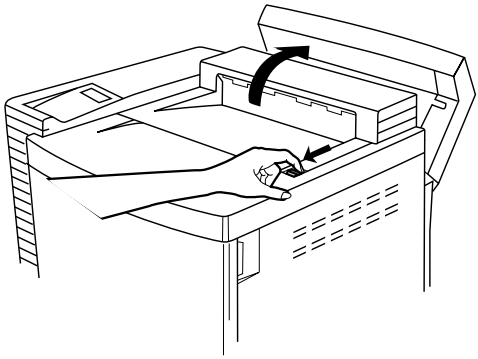
7 Remove the jammed media by pulling it toward you.

If the media came out easily, skip ahead to step 12.

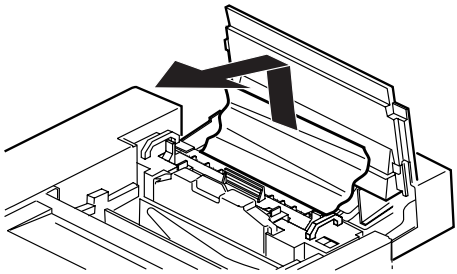
If the media did not come out easily or if you cannot reach the media from this area, keep the duplex unit's lower cover open.

8 With the duplex unit's top cover still open, open the printer's top cover.

Pull the top latch to release the top cover.

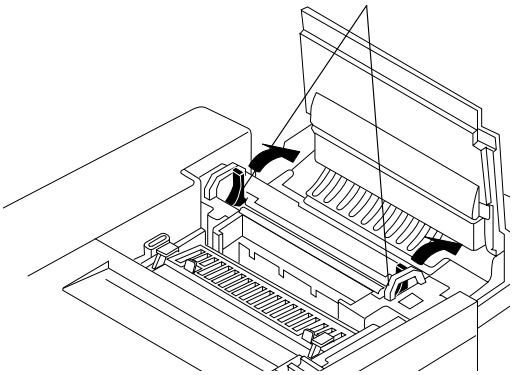


9 Remove the jammed media by pulling it toward you.

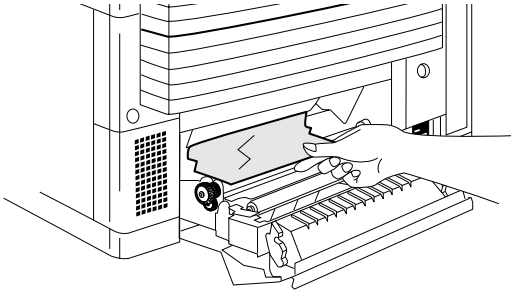


10 If the media doesn't come out easily, open the fuser roller pressure release levers (one at each end of the fuser).

Fuser roller pressure release levers



11 Open the printer's rear cover (accessible with the duplex unit's lower cover and paper guide open) and remove the jammed media by pulling it from the bottom of the fuser, not from the top of the fuser.



Attention

Be careful not to touch the transfer drum while removing jammed media.

Removing the media from the bottom prevents any unfused toner from dirtying the fuser rollers.

12 Close the fuser roller pressure release levers (one at each end of the fuser).

13 Close the printer's top and rear covers.

14 Close the duplex unit's paper guide, lower cover, and top cover.

Clearing Other Jams

Remove jammed media from the output tray by gently pulling it toward you.

Solving Problems with Media Jams

Frequent jams in any area indicate that area should be checked, repaired, or cleaned. Repeated jams may also happen if you're using unsupported print media.

Symptom	Cause	Solution
Several sheets go through the printer together.	The front edges of the media are not even.	Remove the media and even up the front edges, then reload it.
	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Too much static electricity is present.	Do not fan transparency media.
Paper jam message stays on.	Front cover needs to be opened and closed again to reset the printer.	Open and close the front cover of the printer again.
	Some media remains jammed in the printer.	Recheck the paper path and make sure you have removed all of the media jams.
Duplex unit jams.	The wrong media is being used.	Use only supported media. Refer to the "Media Types" on page 35.
		Plain paper and thick stock up to 28 lb bond (105 g/m²) can be autoduplexed if the optional duplex unit is installed. For heavier weights, manual duplexing is required. To manually duplex, remove the media, flip it over, and reload it.
		Make sure that you have not mixed media types in your media tray.
		Do not duplex envelopes, glossy stock, labels, thick stock, transfer media, or transparencies.
	Media may still be jammed.	Check for media stuck in the paper guides in the duplex unit's top cover, and the media supply area on the lower side of the printer.
		If you removed jammed media from near the OPC belt cartridge, reset the OPC belt cartridge's locking levers.

Symptom	Cause	Solution
Media is jamming.	The media is not correctly positioned in the tray.	Remove the jammed media and reposition the media properly in the tray.
	The number of sheets in the tray exceeds the maximum allowed.	Remove the excess media and reload the correct number of sheets in the tray.
	The width regulation guides are not correctly adjusted to the media size.	Adjust the regulation guides in the tray to match the size of the media.
	Warped or wrinkled media is loaded in the tray.	Remove the warped or wrinkled media and replace it with new media.
	The recommended transparency (OHP) or label paper is facing the wrong way in the tray.	Load the transparencies or labels according to the manufacturer's instructions.
	Multiple sheets of transparency (OHP) media are collecting static electricity in the tray.	Remove the OHP media and load it in the tray one sheet at a time. Do not fan transparencies before loading them.
	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Unsupported media (wrong size, thickness, type, etc.) is being used.	Use media that is approved for your printer model.
	Media supply roller is dirty.	Clean the media supply roller.
	The wrong media tray is used.	Labels, thick stock, and transfer media can only be printed from the upper media tray.
		Envelopes and postcards (Japanese-sized) can only be printed from the upper media tray with the correct feeders.

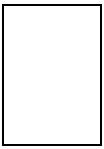
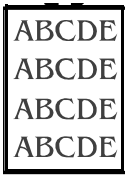
Solving Other Problems

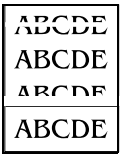
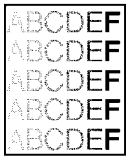
Symptom	Cause	Solution
Data was sent to the printer, but it doesn't print.	An error message is displayed in the message window.	Handle according to the message displayed.
	A PS error occurred.	If a PS error occurs, contact Technical Support with the error information. See the *Service & Support Guide* for support telephone numbers.
Printer resets.	A system error occurred.	Contact Technical Support with the error information. See the *Service & Support Guide* for support telephone numbers.
The start-up page comes out skewed.	The transfer unit was jarred open during the installation and needs to be closed.	Close the printer's rear cover.
The startup page prints as a shrunken image.	The center media guide is not in direct alignment with the LTR marking in the bottom of the media tray.	Reset the center media guide.
The start-up page comes out too small and in the wrong orientation.	The media guides are not accurately set in the media tray.	Reset the media guides.
Not all pages print.	The printer has the wrong kind of cable, or the printer is not configured for the correct cable and port.	Check your cable.
	The Cancel key was pressed.	Make sure no one pressed the Cancel key while your job was printing.
	The media tray is empty.	Check the message window to see if the tray you are using is out of media.

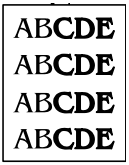
Symptom	Cause	Solution
Printing takes too much time.	The printer is set to a slow printing (Thick Stock) mode (for example, for OHP or some other special kind of media).	It takes more time to print with special media in Thick Mode. When using regular paper, make sure that the media type is set to Automatic in the driver.
	The printer is set to power saving mode.	It takes a little time for printing to start in power saving mode. If you do not want to use this mode, disable it.
	The printer memory is insufficient.	Add more memory.
	The job is **very** complex.	Wait. No action needed.
	The printer is set for single user mode.	If getting your jobs printed in a timely manner is most important, use network mode
You are experiencing problems duplexing.	Media or settings are not correct.	Make sure that you are using only plain paper. Do not duplex envelopes, glossy stock, labels, postcards, transfer media, or transparencies. Make sure that you have not mixed media types in your tray(s).
		Make sure that your document has more than one page.
		Go into the printer's control panel and make sure that duplex is an available option.
		In the printer driver, choose Short Edge (flipped as on a clipboard) or Long Edge (flipped as in a loose-leaf notebook). Make sure that you are using correct media.
		Make sure that all of the covers are closed. Open and then close the covers to confirm that they are securely closed.
		If you turned the printer off, make sure that you have turned the printer on again and waited for it to warm up
Back of 11" x 17" page is upside down.	The driver is set to duplex on long edge.	Set the driver to duplex on the short edge.

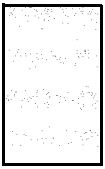
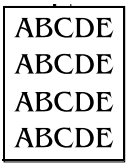
Symptom	Cause	Solution
OPC belt cartridge cannot be removed.	The printer's **front** cover is not opened and the lock levers have not been set correctly.	Open the printer's front cover and set the lock levers to the correct open position.
Text appears fuzzy or unclear.	A new toner cartridge has been installed, but the "break-in" period has not been reached.	Print at least 20 pages to achieve maximum printing quality in the new cartridges.
Envelopes will not print or will get jammed.	You can only print envelopes from the envelope feeder in the upper tray.	Print envelopes from the envelope feeder installed in the upper tray.
	The envelope feeder is misinstalled.	Open the upper tray, remove the envelope feeder, and reinstall it.
Printer power is not on.	The power cord is not correctly plugged into the outlet.	Turn the power switch off, then remove the power cord from the outlet and plug it back in.
	The power switch is not correctly turned on (I position).	Set the power switch to the off, then set it back to the on (I) position.
	Something is wrong with the outlet you are using for the printer.	Plug another electrical appliance into the outlet and see whether it operates properly.
	The printer is connected to an outlet with a voltage or frequency that does not match the printer specifications.	Use a power source with the following specifications: —**Power** Japan: 100 VAC 50–60 Hz 12 amps North America: 120 VAC 50–60 Hz 8 amps Europe: 220-240 VAC 50–60 Hz 6 amps Latin America: 120 VAC 50–60 Hz 8 amps 220-240 VAC 50–60 Hz 6 amps —**Voltage fluctuation** Japan: 100 VAC ±10% North America: 120 VAC ±10% Europe: 220-240 VAC ±10% Latin America: 120 VAC ±10% 220-240 VAC ±10% —**Frequency fluctuation rate** within 50/60 ±3 Hz

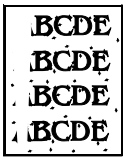
Solving Problems with Printing Quality

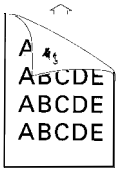
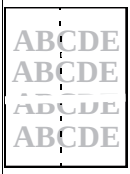
Symptom	Cause	Solution
Nothing is printed. 	The toner cartridge is damaged.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The driver is not set correctly.	Select the proper setting in the driver to switch from transparency (OHP) film to plain paper.
	The OPC belt cartridge is damaged.	Remove the OPC belt cartridge and check for damage. If necessary, replace it.
	The transfer roller unit is misinstalled.	Reset the transfer roller unit.
	The media is moist from humidity.	Adjust the humidity for paper storage. Remove the moist media and replace it with new, dry media.
Image is too light; there is low image density.	The media is moist from humidity.	Remove the moist media and replace with new, dry media.
	There is not much toner left in the cartridge.	Remove the toner cartridge and gently rock it horizontally five or six times to redistribute the toner.
		Replace the toner cartridge.
	One or more toner cartridges are defective.	Remove the toner cartridges and check for damage. If necessary, replace it.
	Media type may be set incorrectly.	Envelopes, glossy stock, labels, transfer media, and thick stock have to be set in the Thick Stock mode.
The print contains whited out areas.	Media may be moist.	Remove the moist media and replace it with new, dry media.
	Humidity may be too high.	Adjust the humidity in the paper storage area.
	The OPC belt cartridge is damaged.	Remove the OPC belt cartridge and check for damage. If necessary, replace it.

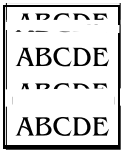
Symptom	Cause	Solution
Horizontal white lines appear in image. 	The toner cartridge is damaged.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC belt cartridge is damaged.	Remove the OPC belt cartridge and check for damage. If necessary, replace it.
	The transfer unit is misinstalled.	Make sure that the transfer unit was correctly installed.
	The transfer roller is damaged.	Replace the transfer roller.
Printouts seem faded on one side. 	The printer is not on a level enough surface.	Level the printer surface. The slant of the surface holding the printer should not exceed 1.5° after the printer is placed on it (for example, a round pencil laid on the surface shouldn't roll in any direction).
Irregular print or mottled image appears. 	The media is moist from humidity or having water spilled on the paper supply. *Toner does not adhere well to paper where it has become wet.*	Remove the moist media and replace it with new, dry media.
	The transfer roller may be misinstalled or defective.	Confirm the proper installation of the transfer roller. If necessary, replace it.

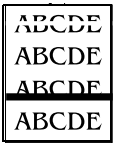
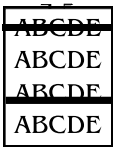
Symptom	Cause	Solution
There is insufficient fusing or the image comes off when rubbed. 	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Media with specifications not covered by the printer warranty is being used.	Use media that is covered by the printer warranty.
	The media type may be incorrectly set.	Envelopes, glossy stock, labels, and thick stock have to be set in the Thick Stock mode.
	The fuser may be defective.	Contact your service provider or Technical Support. See the *Service & Support Guide* for support telephone numbers.
The print or color density may be uneven. 	The toner cartridges may be near empty or damaged.	Remove the toner cartridges and gently rock them five or six times to redistribute the toner. Then, reinstall the cartridges.
		Install new toner cartridges.
	The OPC belt may have misinstalled or defective.	Reinstall the OPC belt cartridge. If necessary, replace it.
Image is blurred; background is lightly stained; there is insufficient gloss of the printed image. 	The media type may be incorrectly set.	Envelopes, glossy stock, labels, and thick stock have to be set in the Thick Stock mode.
	The fuser oil may be depleted.	Check the fuser oil condition. If necessary, replace it.

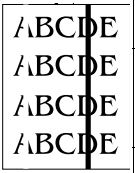
Symptom	Cause	Solution
Back-ground is foggy. 	The toner cartridge is defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC belt cartridge is damaged.	Remove the OPC belt cartridge and check for damage. If necessary, replace it.
Entire sheet is printed in black or color.	The toner cartridge is defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC belt cartridge is damaged.	Remove the OPC belt cartridge and check for damage. If necessary, replace it.
Part of image is missing.	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Media with specifications not covered by the printer warranty is being used.	Use media that is covered by the printer warranty.
	The toner cartridge is defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC belt cartridge is damaged.	Remove the OPC belt cartridge and check for damage. If necessary, replace it.
Image is too dark. 	The toner cartridge is defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC belt cartridge is damaged.	Remove the OPC belt cartridge and check for damage. If necessary, replace it.

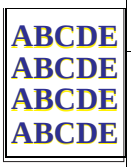
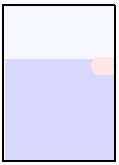
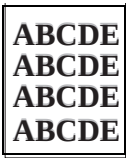
Symptom	Cause	Solution
Dark tones are uneven. 	The toner in the toner cartridges is uneven.	Remove the toner cartridges and gently rock them five or six times to redistribute the toner. Then, reinstall the cartridges.
	The OPC belt cartridge is damaged.	Remove the OPC belt cartridge and check for damage. If necessary, replace it.
There are toner smudges or residual images. 	Toner cartridge misinstalled or defective.	If the toner smudges are on only the front of the page: ■ Remove the toner cartridges and gently rock them five or six times to redistribute the toner. Then, reinstall the cartridges. ■ One or more toner cartridges may be defective. Check the toner cartridges. Install new ones, if necessary.
	The image transfer roller needs cleaning.	If toner smudges are on the front *and* back of the page: ■ Open the printer front cover once and close it again to clean the image transfer roller.
		If toner smudges are on the back of the page: ■ Replace the cleaning roller. ■ If that doesn't work, replace the transfer roller.
		If the image of the *previous* page comes out lightly: ■ Clean the cleaning roller and reinstall it.
There are dark spots on the image. 	The fuser oil roller is dirty or worn.	Remove the fuser oil roller and check the roller surface. If it is very dirty, replace it.
	The transfer belt is defective.	Remove the transfer belt and check for damage. If necessary, replace it.
	The OPC belt is defective.	Remove the OPC belt cartridge and check for damage. If necessary, replace it.

Symptom	Cause	Solution
There are toner smudges on the back side of the page (whether or not it has been duplexed). 	The paper transport rollers may be dirty.	Clean the paper transport, pressure, and fuser oil rollers.
		Check the transport roller for damage. If necessary, replace it.
	The media path is dirty with toner.	Print several blank sheets and the excess toner should disappear.
	The fuser oil roller is dirty or worn.	Remove the fuser oil roller and check the roller surface for dirt or worn places. If necessary, replace the fuser oil roller.
	The toner cartridge is defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC belt cartridge is defective.	Remove the OPC belt cartridge and check for damage. If necessary, replace it.
	The fuser unit is defective.	Replace the fuser unit.
Image defects in same place on every page. 	The transfer belt is defective.	Remove the transfer belt and check for damage. If necessary, replace it.
	The OPC belt is defective.	Remove the OPC belt cartridge and check for damage. If necessary, replace it.
Abnormal areas (white or black) appear in a regular pattern. 	Width of abnormal area: 1.25" (31.75 mm) The toner cartridge is damaged.	Remove the toner cartridge with the color causing the abnormal image. Replace it with a new toner cartridge.
	Width of abnormal area: 3.25" (82.55 mm) The OPC belt cartridge is damaged.	Replace the OPC belt cartridge.

Symptom	Cause	Solution
Image defects cyclical (evenly spaced).  	Lateral image defects have 1–2 mm spacing.	Clean the laser lens cover.
	Lateral image defects have 35 mm spacing. The toner cartridge is damaged.	Replace the color toner cartridge.
	Lateral image defects have 95 mm spacing.	Replace the OPC belt cartridge.
	The OPC belt cartridge is damaged.	
	Lateral image defects have other spacing.	
Abnormal areas (white or black belt or spots) appear. 	The toner cartridge may be defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC belt cartridge may have a foreign particle on it.	Check the surface of the OPC belt, gently clean up the foreign particle using a soft, dry cloth, and replace the OPC belt if necessary.
	The OPC belt cartridge may be defective or scratched.	Remove the OPC belt cartridge and check the photosensitive surface (the green surface) for scratches. If necessary, replace it.
	The fuser oil roller is dirty or worn.	Remove the fuser oil roller and check the roller surface for dirt or scratches. If necessary, replace the fuser oil roller.
	The fusing unit may be defective.	Contact your service provider or Technical Support. See the *Service & Support Guide* for support telephone numbers.

Symptom	Cause	Solution
Lateral (horizontal) lines or bands appear on image. 	The printer is not on a level enough surface.	Level the printer (not exceeding 1.5° slant).
	The media path is dirty with toner.	Print several sheets and the excess toner should disappear.
	The toner cartridge is damaged.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC belt surface is scratched or damaged.	Remove the OPC belt cartridge and check the green photosensitive surface for scratches. If necessary, replace the OPC belt cartridge.
	The transfer roller is misinstalled or defective.	Remove the transfer roller and reinstall it. If necessary, replace it.
	The transfer unit is open.	Make sure the transfer unit is closed.
Lateral (horizontal) lines appear cyclically (evenly spaced) on image. 	Lateral lines have 1–2 mm spacing.	Replace the laser lens cover.
	Lateral lines have 35 mm spacing.	Replace the color toner cartridge.
	Lateral lines have 95 mm spacing.	Replace the OPC belt cartridge.
	Lateral lines have 204 mm spacing.	Replace the fusing unit.
	Trailing edge 35 mm, other spacing	Replace the OPC belt cartridge.

Symptom	Cause	Solution
Vertical streaking appears.  	The laser lens cover may be dirty.	Check to see if the laser lens cover is dirty. If necessary, clean it with a clean soft cloth.
	The corona wire inside the OPC belt cartridge may be dirty.	Clean the corona wire.
	One or more toner cartridges may be defective.	The item may be defective or misinstalled. Remove the item, check it for damage, and reinstall it. If necessary, replace it.
	The OPC belt cartridge may be defective or misinstalled.	
	The fuser unit may be defective or misinstalled.	
	The transfer unit may be defective or misinstalled.	
	If a wide vertical white band appears, check the transfer drum surface.	Clean the transfer drum surface. If necessary, clean the oil off the surface.
		Make sure that the transfer unit is closed.

Symptom	Cause	Solution
Colors are not registering properly; colors are mixed or have page-to-page variation.  	The front cover may not be properly closed.	Make sure that the printer's front cover is closed.
	The OPC belt cartridge is not pushed all the way in.	Remove the OPC belt cartridge and reinstall it.
	The toner in the cartridges may need to be redistributed.	Remove the toner cartridges and gently rock them five or six times to redistribute the toner. Then, reinstall the cartridges.
	The toner cartridge may be defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
The image is offset.  	The OPC belt cartridge is defective.	Check the OPC belt cartridge. If necessary, replace it.
	The fuser oil roller is defective.	Check the fuser oil roller. If necessary, replace it.
	The fuser unit is defective.	Check the fuser unit. If necessary, replace it.
Colors look drastically wrong.	The toner cartridges are incorrectly installed.	Remove the toner cartridges and reinstall them.

Symptom	Cause	Solution
The color has a poor reproduction or has poor color density. 	The paper image transfer is defective.	Check the OPC belt cartridge. If necessary, replace it.

Status, Error, and Service Messages

Status, error, and service messages are displayed in the control panel message window. They provide information about your printer and help you locate many problems. When the condition associated with a displayed message has changed, the message is cleared from the window.

Status messages are not displayed while the printer is off line.

Status and Error Messages

This message...	means...	do this...
ACC DISABLED	The accounting option selected is now in effect.	No action needed.
ACC ENABLED		
ACC *X* FILE FULL	The job or paper file is full (*x* identifies the file).	If you want accounting enabled, copy the job accounting and paper accounting files to floppy disk(s), or transfer them to your host computer using ftp (if available). Then reset the accounting files so that new jobs can be accepted. If you don't want to use accounting, you can disable it.
ACC FILE 95% FULL ACC FILE 90% FULL ACC FILE 85% FULL ACC FILE 80% FULL	The Job Accounting File is 80, 85, 90, or 95% full.	
ACC FILES GOT REMOVED	The accounting option is disabled and the accounting files are empty. After a reset, the files are removed. This prevents you from wasting disk space with empty accounting files.	No action needed.
ACC FILES NOT EMPTY SHRUNK TO %D	An attempt to reduce the size of the accounting files has been made unsuccessfully because the size of files is bigger than the space required.	Reset the accounting files.
ACC_GETSTATUSREC;CODE=%D, RESETTING ACC TO INITIAL STATE	The accounting files have been reset.	No action needed.
ADJUST <*INPUT*> *BIN*	The <*INPUT*> (specified tray) is not inserted correctly.	Adjust the tray.

This message...	means...	do this...
BELT CARTRIDGE MISINSTALLED	The OPC belt cartridge is either missing or incorrectly installed.	Make sure that an OPC belt cartridge is correctly installed.
CANCEL ALL JOBS	The Cancel key has been pressed, and one or more of the print jobs in the print queue are being canceled.	Press Select for all jobs with a printing, interpreting, spooled, or terminating status to be completely removed from the system.
CANCEL JOB	The Cancel key has been pressed, and the print job in the print queue is being canceled.	Press Select and the job in the print queue will be canceled.
CHECK CLEANING ROLLER	The cleaning roller needs to be replaced.	Install a new cleaning roller.
CHECK WASTE TONER	Either the waste toner is full and needs to be replaced, or it is incorrectly installed.	Make sure that the waste toner is not full and is correctly installed. Make sure it sits loosely in its compartment and that the top of the bottle is not wedged under the top of the compartment.
CLEANING ROLLER MISINSTALLED	The fuser cleaning roller isn't installed correctly.	Remove and reinstall the cleaning roller.
CREATED FILE	The accounting file has been created.	No action needed.
CREATING *XXXXXXXXXXXX* FILE, WAIT...	The specified accounting file is created when accounting is enabled and the files are not in existence or these files are created following a Reset Accounting (XXXXXXXXXXXX represents the Job Accounting or Paper Accounting file).	Wait. No other action needed.

This message...	means...	do this...
DRUM JAM	Media has jammed in the drum area.	Locate and remove the jam.
DSK TOO SMALL ACC NOT ENABLED	There is not enough space in the hard disk to create the accounting file.	Remove unnecessary files stored in the hard disk.
DUPLEX JAM	Media has jammed in the duplex unit.	Locate and remove the jam.
DUPLEX UNIT PANEL OPEN	One of the duplex unit's doors is open.	Make sure all doors are fully closed.
END JOB	The Cancel key has been pressed and the End Job option selected.	Press Select to provide an end-of-job indicator for a print job that does not have one.
ENERGY SAVER	The printer is in energy saver mode to reduce power consumption during periods of inactivity. When a print job is received, the printer returns to normal power within 90 seconds. While in "deep sleep," the printer's message window will not display operator status such as door- and tray-open messages. The printer remains in "deep sleep," until a print job is received, or until the printer is manually switched from offline to online.	No action needed.
EXTENDED ACC FILE SIZE BY <*X*> KB	The <*X*> (size of the non-empty accounting file) has been increased successfully.	No action needed.

This message...	means...	do this...
<x> DOOR OPEN	The specified cover is open and must be closed.	Close the cover.
FUSER JAM	Media has jammed leaving the fuser area.	Locate and remove the jam.
FUSER MISINSTALLED	The fuser is not fully seated.	Make sure the fuser is fully seated.
FUSER OIL EMPTY	The fuser oil bottle for the fuser is empty. The printer will not print any more copies until a new fuser oil bottle is installed.	Install a new fuser oil bottle.
FUSER OIL LOW	The fuser oil bottle for the fuser unit is running low.	If you have a new fuser oil bottle on hand, you may want to install it now. If you don't, order one now. A limited number of copies (about 100) will still print. However, when the oil runs out, the printer stops and the FUSER OIL EMPTY message appears.
IDLE	The printer is on line, but no jobs are in process.	No action needed.
INITIALIZING	The printer is warming up and getting ready to go on line.	Wait. No other action needed.
INNER JAM	Media has jammed leaving the OPC belt cartridge area.	Locate and remove the jam.
INPUT BIN JAM	Media has jammed while being pulled from the specified tray.	

This message...	means...	do this...
MEDIA MISMATCH	The media detected in the tray doesn't match the media size setting.	Change the media in the tray or change the media size setting.
MISFEED JAM	Media has jammed between the print engine and the input tray.	Locate and remove the jam.
NO PRNTREQ ERROR	A printer hardware error has occurred.	Reboot printer. If message continues to appear, contact your service provider or Support. See the *Service & Support Guide* for support telephone numbers.
OPTIONAL BIN REAR DOOR OPEN	The lower feeder unit (standard on the DP model) rear door is open.	Close the door.
OUTER JAM	Media has jammed between the print engine and the output tray.	Locate and remove the jam.
OUTPUT BIN FULL	The media has exceeded the limit (such as over 250 sheets of 20 lb [75 g/m^2] bond) in the output bin.	Remove the media from the output bin.
OUTPUT BIN JAM	A media jam has been detected between the fuser and output tray rollers located near the top cover.	Locate and remove the jam.
MEDIA MISMATCH	The media detected in the tray doesn't match the media size setting.	Change the media in the tray or change the media size setting.
PRINTING STATUS	A status page is printing	Wait until after the status page prints, and the message clears.

This message...	means...	do this...
PUT <*X*> IN INPUT <*Y*>	The <*X*> specified media is not in the input tray <*Y*>.	Refill the tray with the specified type media.
PUT <*SIZE*> PAPER IN <*INPUTBIN*> BIN	The Operator Control/ Chain Inputbins is set to Off and the displayed tray is empty. Refill it with the specified size media. <*SIZE*> is the media size detected by the engine, and <*INPUTBIN*> is the empty tray.	Refill the tray with the specified size media.
PUT THICK STOCK IN INPUT BIN	Thick stock has been specified in the Operator Control/Media/For Upper Bin control panel setting.	Refill the tray with thick stock or change the control panel setting from Thick Stock to Automatic.
PUT TTRANSPARENCY IN INPUT BIN	Transparency has been specified in the Operator Control/Media/For Upper Bin control panel setting.	Refill the tray with transparencies or change the control panel setting from Thick Stock to Automatic.
PUT <*TYPE MEDIA*> IN INPUT BIN	Operator Control/Chain Inputbins is set to On and a chained tray is empty.	Refill the tray with the specified type media.
REAR DOOR OPEN	The rear cover is not closed.	Close the rear cover.
REPLACE <*X*>	The specified item <*X*> needs to be replaced, such as the OPC drum.	Replace the specified item.
RESETTING ACCOUNTING	The reset accounting operation is in process.	No action needed.
TOP DOOR OPEN	The top cover of the printer is not fully closed.	Make sure the top cover is fully closed.

This message...	means...	do this...
WAITING FOR IDLE	An active job is in process. Access to the menu is not allowed until the job is finished.	Wait until the print job is finished and the printer goes idle.
WARMING UP	The printer is warming up.	Wait. No other action needed.
<*X*> COVER OPEN	The <*X*> (specified cover) is open and must be closed.	Close the cover.
<*X*> LIFE LOW	The <*X*> (specified item) is near end of life, such as the fuser oil roller. If you have a new fuser oil roller on hand, you may want to install it now. If you don't, order one now. A limited number of copies (about 100) will still print. However, when the oil runs out, the printer stops and the FUSER OIL EMPTY message appears.	Replace the specified item.
<*X*> TONER EMPTY	The <*X*> (color) toner cartridge is empty.	Replace the toner cartridge.
<*X*> TONER LOW	The <*X*> (color) toner cartridge is low. There is still enough for approximately 100 letter/A4 pages (at 5% coverage) before the printer stops.	Redistribute the toner in the cartridge, or replace the cartridge.
<*X*> TONER MISINSTALLED	The <*X*> (color) toner cartridge is not installed properly.	Remove the toner cartridge and reinstall.

Service Messages

A service message sometimes occurs as a result of an unusual combination of events, not because of an actual problem. When the printer stops and a service message displays in the message window, turn the printer off and then back on. This often clears the service message indicator, and printer operation resumes. Always try this before making a service call.

Service calls should be placed to the vendor from whom you purchased the printer. If you cannot get service from your vendor, see the *Service & Support Guide* for additional contact information

This service message...	**means...**	**do this...**
`120K PM SERVICE`	The consumable usage information indicates that 120,000 pages have been printed since the last time the 30K PM Service counter was reset.	Perform all cleaning procedures. See “Cleaning the Printer” on page 55. After performing preventive maintenance, reset the 120K PM Service counter using the Operator Control/ Consumables/Print Statistics menu or the printer web page.
`240K PM SERVICE`	The consumable usage information indicates that 240,000 pages have been printed since the last time the 240K PM Service counter was reset.	Contact Service or a MINOLTA-QMS authorized service provider for preventive maintenance. Your service provider will reset the 240K PM Service counter.

This service message...	means...	do this...
CALL FOR SERVICE C3 NVRAM ERROR	An error has been detected with the item indicated in the service message.	Reboot the printer. This often clears the service message indicator, and printer operation can resume. If the condition persists, contact your local vendor.
CALL FOR SERVICE C4 ENG CTRLR HW*		
CALL FOR SERVICE C7 TIMING CLOCK		
CALL FOR SERVICE D1 Y CLUTCH		
CALL FOR SERVICE D2 M CLUTCH		
CALL FOR SERVICE D3 C CLUTCH		
CALL FOR SERVICE D4 K CLUTCH		
CALL FOR SERVICE D5 YK SOLND		
CALL FOR SERVICE D6 MC SOLND		
CALL FOR SERVICE E1 DEVLPR MOTOR		
CALL FOR SERVICE E2 MAIN MOTOR		
CALL FOR SERVICE E3 DRUM ERROR		
CALL FOR SERVICE E4 TONER SENSOR		
CALL FOR SERVICE E5 ROLLER SOLND		
CALL FOR SERVICE E6 CLEAN SOLND		

This service message...	means...	do this...
CALL FOR SERVICE E7 CLEAN CLUTCH	An error has been detected with the item indicated in the service message.	Reboot the printer. This often clears the service message indicator, and printer operation can resume. If the condition persists, contact your local vendor.
CALL FOR SERVICE E8 FUSER CLUTCH		
CALL FOR SERVICE E9 BELT MARKER		
CALL FOR SERVICE EL ERASE LED		
CALL FOR SERVICE F0 COOLING FAN		
CALL FOR SERVICE F2 OZONE FAN		
CALL FOR SERVICE F4 FUSER FAN		
CALL FOR SERVICE F5 CHRG HV UNIT		
CALL FOR SERVICE H0 FUSER THERM		
CALL FOR SERVICE H2 FUSER TEMP 2		
CALL FOR SERVICE H3 FUSER TEMP 3		
CALL FOR SERVICE H4 FUSER TEMP 4		
CALL FOR SERVICE L1 BEAM DETECTR		
CALL FOR SERVICE L2 SCANNER MOTR		
CALL FOR SERVICE LL LASER POWER		
CALL FOR SERVICE P1 DUP CTRLR HW		

This service message...	means...	do this...
CALL FOR SERVICE P3 DUP SOLND	An error has been detected with the item indicated in the service message.	Reboot the printer. This often clears the service message indicator, and printer operation can resume. If the condition persists, contact your local vendor.
CALL FOR SERVICE P4 DUP MOTOR		
CALL FOR SERVICE P5 DUP SOLND		
CALL FOR SERVICE P6 OPT FAN ERROR		

Error messages P1 through P6 apply only to models with the duplex unit installed.

* HW: Hardware error.

HP-GL Error Codes and PCL Error Codes

The following tables list error codes that could appear on the printer message window when running the HP-GL, PCL or HPXL emulation.

HP-GL	
Error Code	**Description**
0	Not enough memory for job.
1	Too many transformations.
2	Math error.
3	Job aborted.
4	Instruction not recognized.
5	Wrong number of parameters.
6	Out of range parameter, or illegal character.
7	Not used.
8	Unknown character set.
9	Position overflow.
10	Buffer overflow.
11	Not used.

PCL	
Error Code	**Description**
0	Not enough memory for job.
1	State lost.
2	Math error.
3	Job aborted.
4	Out of memory for macros.
5	Disk full. Cannot store fonts.
6–13	Internal error 1–8.

HPXL	
Error Code	**Description**
0	Not enough memory for job.
1	Math error.
2–7	Internal error 1–6

PostScript Errors

If your printer is having trouble printing when using PostScript emulation, you should turn on the Error Handler in the control panel menu. Error Handler is a diagnostic tool that identifies PostScript errors encountered during a print job.

Menu	Administration/Startup Options/Do Error Handler
Choices	Yes—Load the Error Handler on reboot. No—Don't load the Error Handler on reboot.
Default	No
Notes	Refer to the *PostScript Language Reference Manual Third Edition* (Adobe Systems Incorporated, Reading, PA: Addison-Wesley, 1999, ISBN 0-201-37922-8) for information on PostScript errors. You must reboot the printer after turning on the error handler for it to take effect.

Additional Assistance

If you've followed all of the instructions in this guide and still have problems you can't solve, refer to the *Service & Support Guide* or visit our web site at www.minolta-qms.com for current information on getting help.

5

Installing Other Accessories

Introduction

This chapter provides information about the following accessories. Contact your local vendor for purchase information.

BuzzBox	Via parallel connection for 100, 120, and 220 volts
Cabinet	Several models of printer cabinets are available.
Color Calibration Kit	Used to color calibrate your printer and monitor.
Dual In-Line Memory Modules (DIMMs)	Additional memory must be 32, 64, or 128 MB PC-100 Compliant SDRAM DIMMs, up to a maximum of 384 MB.
Duplex Unit	Requires at least one LFU be attached.
Emulations, Fonts, and Other Software	■ ImageServer ■ LN03 Plus; VMS Host Software ■ CGM ■ Kanji Font Internal IDE Hard Disk Drive ■ QFORM ■ PlanetPress (forms-creation utility) ■ Fonts
Interfaces and Daughterboards	■ Crown for DECnet-TCP/IP (equipped with 10BaseT) ■ CrownNet for Ethernet 10BaseT/100BaseTX (equipped with RJ45 connector) ■ CrownNet for Token-Ring (equipped with STP and UTP connectors) ■ LocalTalk Interface ■ SCSI Interface
Internal IDE Hard Disk Drive	Optional, up to 2.2 GB.
Lower Feeder Unit (LFU)	Shipped with a 500-sheet media tray. Up to two LFUs may be attached.
Media Tray, 250 Sheet, universal	Purchasing extra trays may be convenient when changing media formats and/or when media qualities vary.
Media Tray, 250 Sheet, letter/A4	
Media Tray, 500 Sheet for LFU	

SC-210 Color Convenience Copier	SC-210 Color Convenience Copier; optional Automatic Document Feeder (ADF) available
System Software	See Memory and System Software
Time-of-Day Clock	Optional (socket provided for)

Use of consumables not manufactured by MINOLTA-QMS or use of non-supported print media may cause damage to your printer and void your warranty. If MINOLTA-QMS printer failure or damage is found to be directly attributable to the use of non-MINOLTA-QMS consumables and/or accessories, MINOLTA-QMS will not repair the printer free of charge. In this case, standard time and material charges will be applied to service your printer for that particular failure or damage.

Antistatic Protection

Attention

It's very important to protect the printer controller board and any associated daughterboard or module from electrostatic damage while performing any task involving the controller board.

If an antistatic wrist strap is provided in your printer option kit, attach one end of it to your wrist and the other end to any convenient electrical ground (for example, the bare metal chassis of equipment, as on the back of a computer, that is plugged in but turned off). Never attach the wrist strap to any piece of equipment with an electrical current present. Turn off all power switches first. Plastic, rubber, wood, painted metal surfaces, and telephones are not acceptable grounding points. The printer isn't an acceptable grounding point either because it must be unplugged before you perform this task.

If you don't have an antistatic wrist strap, discharge your body's static electric charge by touching a grounded surface before you handle any printer boards or components and before removing the controller board. Also avoid walking around after grounding yourself.

BuzzBox

BuzzBox is a printer accessory that warns you with a buzzer and/or a blinking light any time the printer goes off line. This means you're alerted to print job interruptions, such as empty media trays or other consumable issues.

What's in the Kit?

The BuzzBox kit contains the following items:

- BuzzBox
- Interface box
- RJ-11 cable
- Power adapter
- Velcro® attachment

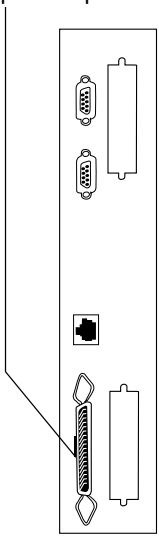
For further assistance or information, call your local vendor. See the *Service & Support Guide* for locations and telephone numbers.

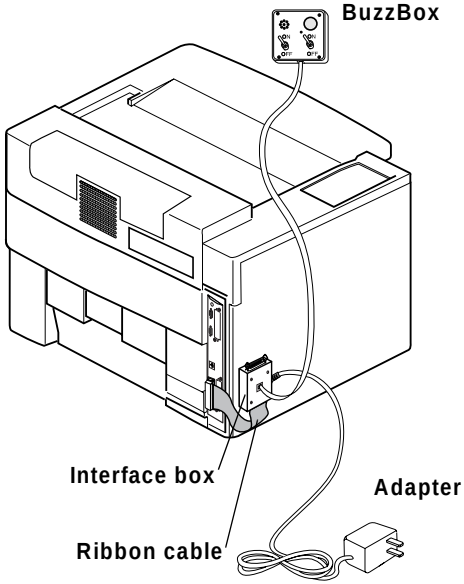
Installing BuzzBox

1 If you have a cable attached to the printer's parallel port, unplug it from the printer.

The illustration shows the printer with the duplex unit. However, the instructions are the same for all models.

2 Attach one end of the parallel cable on the interface box to the printer's parallel port.





The BuzzBox's ribbon cable is designed to be directly attached to the printer's parallel port, not to an adapter or an additional cable.

3 Use the RJ-11 cable to connect BuzzBox to the interface box.

4 Choose a good location on the printer to mount the interface box. Make sure that the unit does not

- interfere with paper exiting the printer.
- cover any vents, doors, connectors, or labels.
- cause the BuzzBox ribbon cable to stretch or twist.

5 Use the Velcro® attachment provided to mount the BuzzBox where the printer operator can see and/or hear it.

A 14-foot (4.2 m) cable is provided, but you can use up to a 500-foot cable (RJ-11 4-pin or 6-pin).

6 Connect the interface box to an electrical outlet.

A 110/220-volt adapter is provided in the US, and a universal power supply is provided outside the US.

7 If you unplugged a parallel cable from the printer in step 1, attach the cable to the parallel port on the interface box.

8 To test the BuzzBox, make sure its switches are on, then press the printer's Online key to take the printer off line.

You can use the BuzzBox switches to enable or disable the buzzer, the light, or both. When the printer goes off line, the light flashes and the buzzer sounds until the printer is placed back on line or until the light and buzzer switches are turned off.

Using BuzzBox

- When the BuzzBox lights or buzzes, check the printer message window to find out what has interrupted printing. See "Status, Error, and Service Messages" on page 97 for a list of printer messages and how to respond to them.
- Remember that pressing the Online key to enter the printer configuration menu triggers the BuzzBox alarm.

Cabinet

Several models of printer cabinets are available. Follow the assembly instructions included with it.

Color Calibration Kit

Follow the instructions included with the kit if the Calibration Card and ColorEncore Brochure are used to color calibrate your printer and monitor.

Dual In-Line Memory Modules (DIMMs)

Dual in-line memory modules (or DIMMs) are compact circuit boards with surface-mount memory chips.

Your magicolor 6110 printer comes with 192 MB SDRAM of printer memory.

However, you can upgrade the magicolor 6110 to a maximum of 384 MB of RAM through the installation of additional DIMMs. Additional memory must be 32, 64, or 128 PC-100 Compliant SDRAM DIMMs.

Additional memory allows you to download more fonts and increase the printer's buffer (area where data sent from the computer is stored while waiting to be printed).

How Much Memory Do You Need?

The amount of RAM installed in your printer governs which resolutions can be used with each media size. You may also need additional memory to print at maximum performance.

Minimum System Memory Requirements

Media Size	600x600				1200x1200			
	Mono	4-Color	Duplex Basic/Full Speed*	Maximum ***	Mono	4-Color	Duplex Basic/Full Speed*	Maximum ***
B5 (ISO), B5 (JIS), Exec.	64	64	64/96		64	96	160/288	
Letter, A4	64	64	64/96	96	64	96	160/384	384
Legal	64	64	64/64	64	64	128	192/192	384
B4	64	64	96/96		64	128	192/192	
Ledger, A3	64	64	96/96		64	160	288/288	
12"x18" 13"x18"	64	64	N/A***		64	192	N/A***	
13"x19"	64	64	128/128		64	192	384/384	
Notes	* “Basic” memory requirement is the minimum memory required to print at the indicated resolution. “Full speed” mode for letter/A4 and smaller sizes refers to the ability to put either 1 or 2 images on one pass of the OPC belt. You get the fastest speed when you run 2-up (automatically controlled by the printer), and you need more memory to support this. **“Maximum Performance” memory requirement is the minimum memory required to achieve the maximum performance possible for any given job. The page rate, with maximum listed memory, will be determined solely by the complexity of the job. ***N/A = Not applicable. These two sizes cannot be autoduplexed.							

You may also need additional memory (DIMMs) for the following:

- To print complex graphics or complex PostScript documents
- For increased collation performance
- For increased spooling performance

The magicolor 6110 has 3 DIMM slots available. The maximum memory that can be installed is 384 MB.

Model	Standard Memory	Supports up to...
GN	192 MB SDRAM DIMM	1200 x 1200 dpi simplex printing on all paper sizes

- Check the startup page to make sure the printer has enough RAM installed.

  To allocate the default amount of memory to the memory clients, use the Memory/Quick Config menu to choose the correct resolution and paper size for your printing (refer to the CrownBook *for further information).*

If you experience a problem with your magicolor 6110, first go through the installation procedure in this guide once more. Verify each item thoroughly. You may also refer to “Troubleshooting” on page 69 for troubleshooting tips. If you still experience a problem, contact your local vendor or contact Service (refer to the *Service & Support Guide*).

Installation

Attention

It’s very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 113. In addition, always handle circuit boards by the edges only.

1 If you are not to the point when you are able to print an advanced status page yet, skip to step 2.

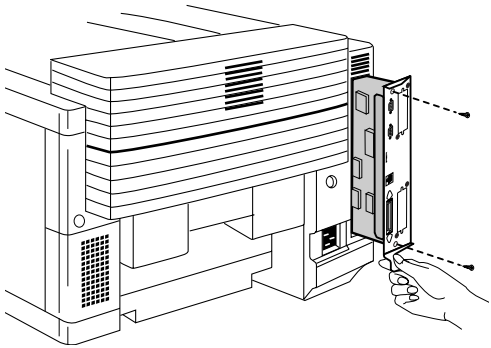
If you have previously installed your printer and have confirmed that it is printing, print an advanced status page in case you need to restore any current memory settings after the DIMM installation.

Installing DIMMs automatically restores memory defaults. If your memory settings are specific to your environment, print an advanced status page before installing DIMMs, so you can recover the current memory settings.

2 Ensure that the printer is turned off and the power cord and all interface cables are disconnected.

3 Remove the controller board from the printer.

Loosen two screws, one on each end of the I/O connector panel, and, using the tab on the lower side of the connector panel, pull the controller board from the printer.



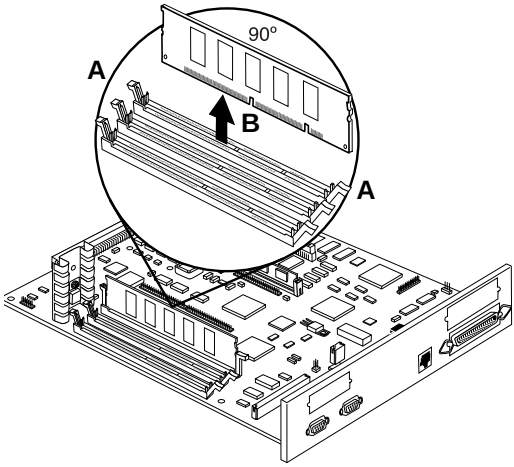
4 Position the controller board on a flat surface so the I/O connector panel is facing you.

If you want to install more memory, you have to exchange one or more DIMMs for DIMMs with a greater memory capacity.

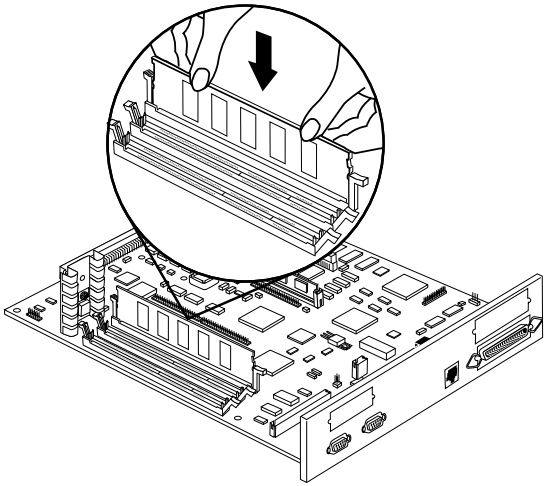
5 If you need to remove a DIMM before installing one, remove it as follows; otherwise skip to step 6.

a Using both thumbs, pull the latches (A) (one on each side of the DIMM connector) outward.

b Lift the DIMM straight out (B) of the DIMM connector.



6 Insert the new DIMM straight down into the DIMM connector until the latches snap into the locked position.



Observe the keyed side of the DIMM to align it with the connector. When seated, the DIMM stands upright, firmly in place. If you cannot snap the DIMM into place, do not force it. Reposition it, making sure that the bottom of the DIMM is seated completely in the connector.

7 Reinstall the controller board into the printer.

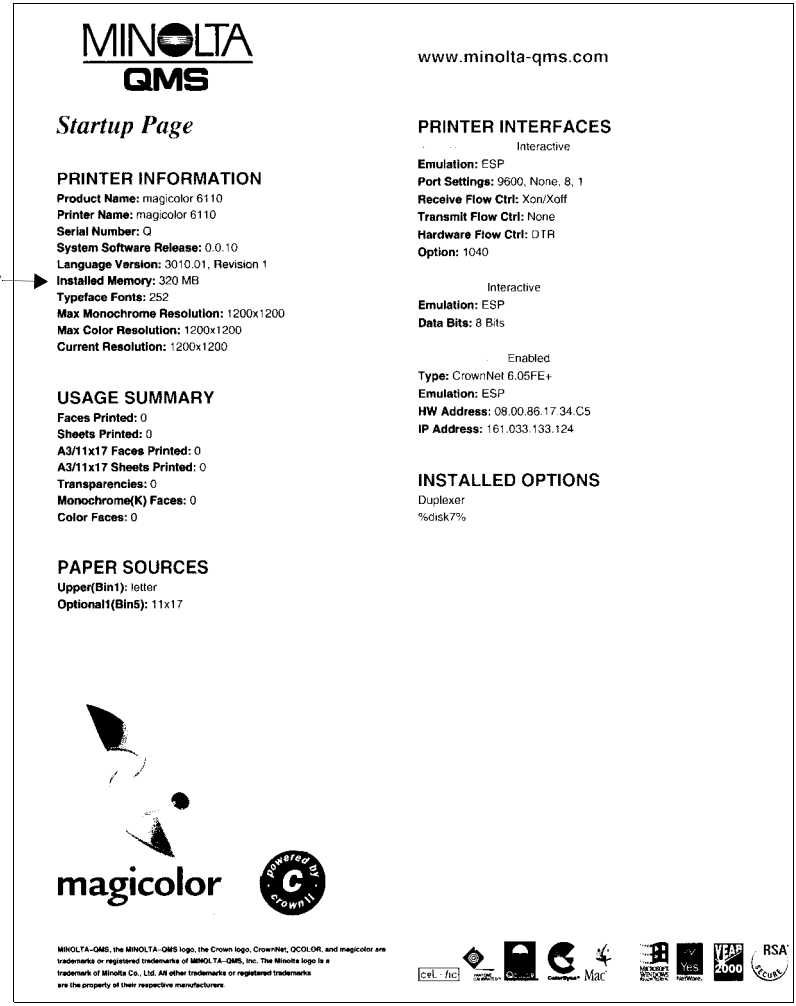
Gently slide the controller board into the printer's tracks until it is fully seated, and then tighten the two screws.

8 Reconnect all interface cables.

9 Reconnect the power cord, and turn on the printer.

In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

10 When you print a startup page, verify that the total size of the RAM installed in your printer is listed.



MINOLTA QMS

www.minolta-qms.com

Startup Page

PRINTER INFORMATION

Product Name: magicolor 6110
Printer Name: magicolor 6110
Serial Number: Q
System Software Release: 0.0.10
Language Version: 3010.01, Revision 1
Installed Memory: 320 MB
Typeface Fonts: 252
Max Monochrome Resolution: 1200x1200
Max Color Resolution: 1200x1200
Current Resolution: 1200x1200

Memory

USAGE SUMMARY

Faces Printed: 0
Sheets Printed: 0
A3/11x17 Faces Printed: 0
A3/11x17 Sheets Printed: 0
Transparencies: 0
Monochrome(K) Faces: 0
Color Faces: 0

PAPER SOURCES

Upper(Bin1): letter
Optional1(Bin5): 11x17

PRINTER INTERFACES

Interactive
Emulation: ESP
Port Settings: 9600, None, 8, 1
Receive Flow Ctrl: Xon/Xoff
Transmit Flow Ctrl: None
Hardware Flow Ctrl: DTR
Option: 1040

Interactive
Emulation: ESP
Data Bits: 8 Bits

Enabled
Type: CrownNet 6.05FE+
Emulation: ESP
HW Address: 08.00.86.17.34.C5
IP Address: 161.033.133.124

INSTALLED OPTIONS

Duplexer
%disk7%

magicolor

powered by crown II

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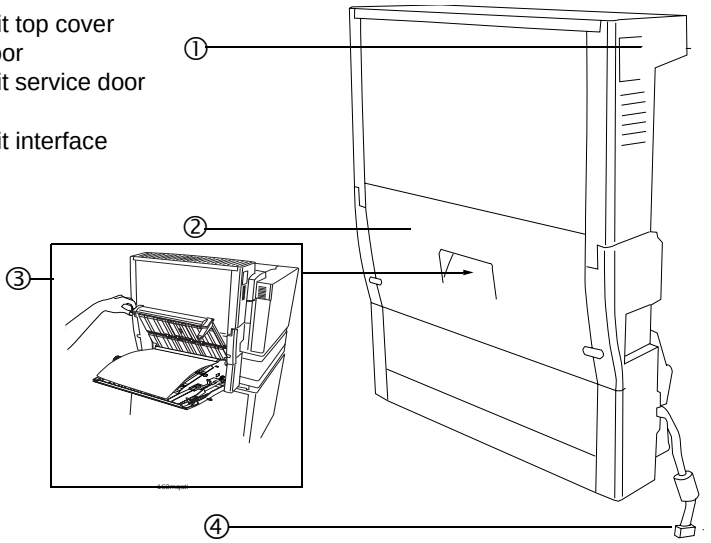
Duplex Unit

Installing the duplex unit requires at least one lower feeder unit installed.

1—Duplex unit top cover
2—Service door
3—Duplex unit service door (open)
4—Duplex unit interface

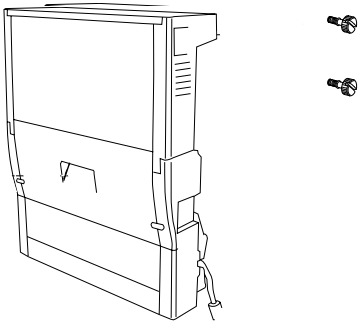


Installing a Duplex Unit

The duplex unit attaches to the rear of the printer and the lower feeder unit (LFU).

Kit Contents

- Duplex unit
- 2 thumbscrews



Installation

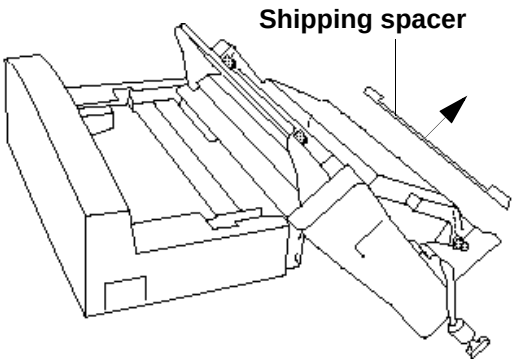
Attention

Make sure the printer is turned off and unplugged before performing the following steps.

1 Unpack the duplex unit from its shipping box.

*We **strongly** suggest that you save the packaging materials in case you ever need to move or ship the printer.*

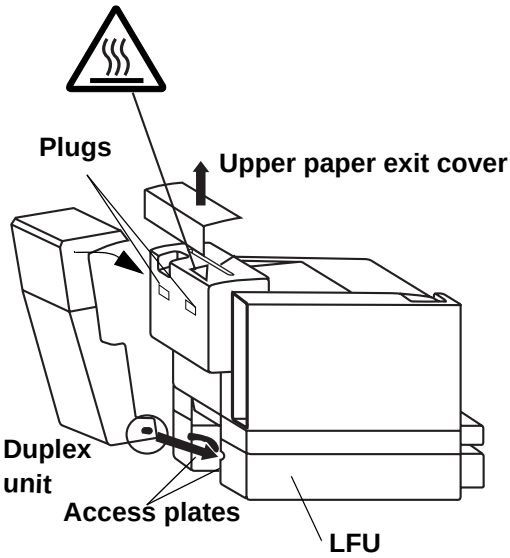
2 Remove the shipping spacer from the bottom of the duplex unit.



3 Remove the upper paper exit cover from the top-rear of the printer.

4 Facing the back of the printer, using a flat-bladed screwdriver or small coin, remove the two plugs from the upper-rear of the printer by gently prying outward from the plug slots.

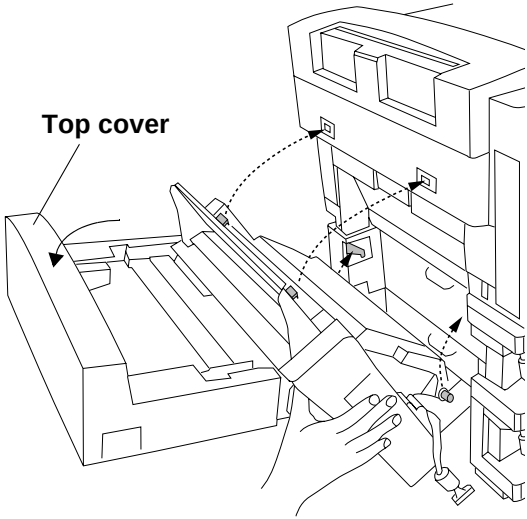
5 Facing the back of the printer, remove the two access plates located on the rear, inside panels of the LFU by sliding the plates toward you.



6 Open the duplexing unit top cover.

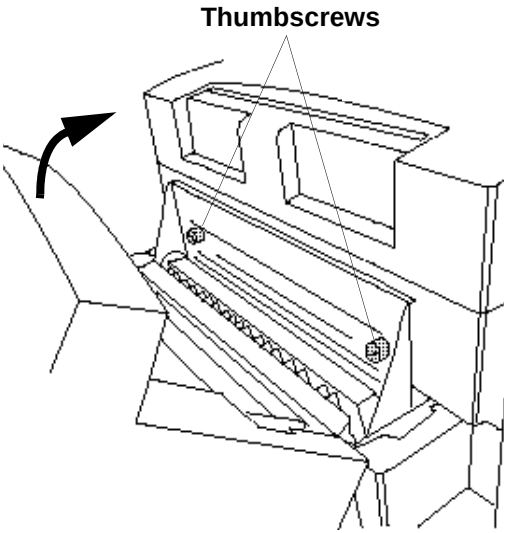
7 Attach the duplex unit by aligning the pins with the slots located at the lower rear of the LFU.

8 Push the top of the duplex unit toward the printer to snap it into place against the rear printer casing.

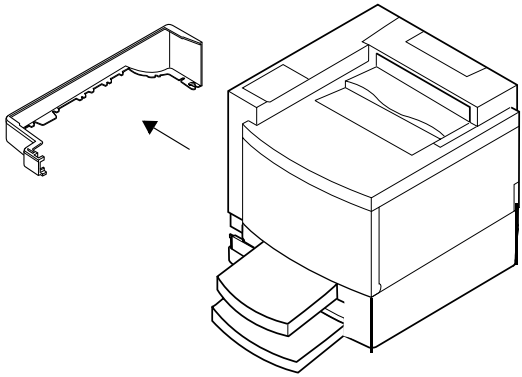


9 Fasten the two thumbscrews to lock the duplex unit into place.

10 Close the duplex unit top cover.



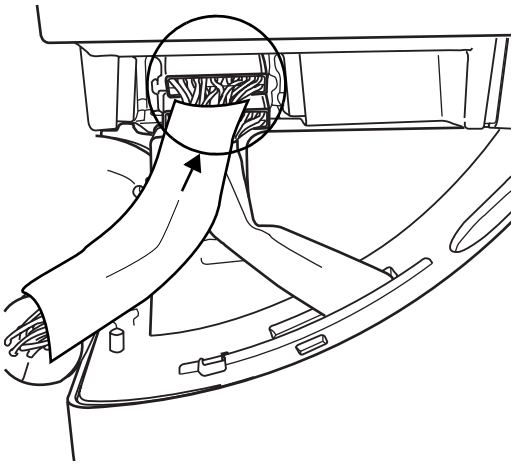
11 Remove the left side cover from the printer.



12 Connect the duplex unit cable to the black connector at the left rear side of the printer.

13 Reattach the left side cover.

14 Plug the printer in and turn it on.



In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

Select paper with high opacity for duplex printing. Opacity refers to how effectively paper blocks out what is written on the opposite side of the page. If the paper has low opacity (high transparency), then the printed data from one side of the page will show through to the other side. For best results, print a small quantity to make sure the opacity is acceptable.

Emulations, Fonts, and Other Software

Emulations

Optional emulations, such as ImageServer, LN03 Plus, and CGM are available. This section describes how to download an emulation to the printer's hard disk.

You must have at least one hard disk, internal or external, attached to the printer in order to use an optional emulation. If more than one hard disk is available, the emulation automatically installs itself on the disk with the most free storage space. MINOLTA-QMS recommends that you have at least 4 MB of memory above the base configuration and that you add at least 1 MB memory for each emulation installed. This ensures that the printer can run the emulation without slowing down performance.

Downloading an Emulation via PageScope

We recommend that you use PageScope to download an emulation. Refer to the PageScope online help for instructions.

CrownView

Many of the configuration choices that can be made at the control panel can also be made via CrownView. See the MINOLTA-QMS CrownView online help for information.

Downloading an Emulation via a Parallel Interface

1 Turn on the printer, and wait for `IDLE` to display in the message window.

2 If your PC is running Windows, change to DOS.

3 Insert the emulation CD-ROM or disk in your PC, and change to that drive (for example, if you're using the D drive, type `d:`↵).

4 Send the emulation to the printer's hard disk. Type

```
copy filename lpt#↵
```

where *filename* is the name of the installation file and where # is 1 to 3, depending on the parallel port your printer is connected to (usually 1).

5 When downloading is complete and the printer returns to the idle status, reboot the printer.

The emulation should be listed in the Options section of the printer's start-up page, in the Administration/Emulation printer's configuration menu, and on the advanced status page.

Downloading an Emulation via an Ethernet Interface

Before you begin this procedure, your printer and PC (or UNIX workstation) must be connected to an Ethernet network running TCP/IP and have valid IP addresses.

1. Turn on the printer, and wait for `IDLE` to display in the message window.
2. If your PC is running Windows, change to DOS.
3. Insert the emulation CD-ROM or disk in your PC, and change to that drive (for example, if you're using the D drive, type `d:`↵).

   If you want to download the emulation from a UNIX workstation, copy the installation file from the emulation CD-ROM or disk to a temporary directory on your UNIX workstation, then change to that directory.
4. Open an ftp session on your PC or workstation by typing one of the following commands:

   `ftp` *`printername`*↵ (for example, ftp pctdev6↵)

   `ftp` *`ipaddress`*↵ (for example, ftp 161.33.130.45↵)
5. When prompted for a user name and password, press Enter for both.

   An ftp> prompt displays.
6. At the `ftp>` prompt, change to binary mode by typing

   `bin`↵
7. At the `ftp>` prompt, send the emulation file to the printer's hard disk by typing

   `put` *`filename`*↵

   where *filename* is the name of the installation file.

   The printer's message window reads `1 ACTIVE JOB` to indicate that the emulation is being downloaded to the hard disk. The `ftp>` prompt returns when the emulation has finished loading.
8. At the `ftp>` prompt, end the ftp session by typing

   `quit`↵
9. When the Disk light stops flashing and the printer's message window reads `IDLE` for at least 30 seconds, turn the printer off and then on again.
10. When downloading is complete and the printer returns to the idle status, reboot the printer.

The emulation should be listed in the Options section of the printer's start-up page, in the Administration/Emulation printer's configuration menu, and on the advanced status page.

You may want to erase any installation files left on your computer (and/or workstation), and then remove any temporary directories.

Using an Optional Emulation

Refer to the documentation that came with your emulation for configuration and usage instructions.

ImageServer

MINOLTA-QMS ImageServer technology provides a high-performance, cost-effective way for businesses using document imaging to print their stored image files. For complete information, refer to the documentation that comes with the ImageServer option.

TIFF, CALS

A CCITT emulation (Group 4, monochrome only) is available through the MINOLTA-QMS ImageServer option, which image-enables your printer, allowing it to print many images at or near the rated engine speed and eliminating the need for a computer dedicated to rasterizing images. For complete information, refer to the documentation that comes with the ImageServer option.

LN03 Plus

An LN03 Plus emulation offers all of the features on an LN03 Plus laser printer, including DECTEK emualtion and Digital's Tektronix 4014 emulation.

If you already have files containing LN03 Plus escape sequences, or if you have set our application to print to an LN03 Plus printer, you only need to follow its installation instructions to begin using the emulation in your MINOLTA-QMS printer.

- **Host software compatibility**—Since LN03 Plus runs under VMS, VMS compatibility is important. the MINOLTA-QMS VMS DECnet host software 2.*x* is compatible with version 3.*x* MINOLTA-QMS daughterboard software.
- **Printer compatibility**—This LN03 Plus emulation can be installed only on MINOLTA-QMS printers that contain a hard disk drive (either internal or external).

Fonts

MINOLTA-QMS Font & Form Center

The MINOLTA-QMS Font & Form Center serves our customers with fonts, logos, signatures, and forms. Further information can be found on the web at http://www.minolta-qms.com/products/fontcenter/index.html or by phone at 1 (251) 634-4FONT. The MINOLTA-QMS Font & Form Center

1. Maintains a library of PCL, PostScript, LN03 Plus, and MINOLTA-QMS QUIC fonts.
2. Distributes the Linotype Library of PostScript fonts.
3. Develops custom PCL, PostScript, LN03 Plus, and MINOLTA-QMS QUIC fonts.
4. Develops PCL, PostScript, and MINOLTA-QMS QUIC signatures.
5. Develops PCL, PostScript, and MINOLTA-QMS QUIC logos and graphics.
6. Develops QFORM, PlanetPress, and Word forms.
7. Archives files at no extra cost.

QFORM

The MINOLTA-QMS QFORM option allows you to use existing lineprinter and forms printing applications on your magicolor 6110 printer. This printer resident application gives you the ability to store PostScript forms on the printer's hard disk and fill those forms with your application's ASCII print stream. Features include

- Definition of page formatting and fonts
- Duplexing with binding-margin offsets
- Two-sided forms with text fill-in on front and/or back
- "Gray bar" listing formats
- Automatic page numbering
- ANSI carriage-control recognition
- Single- and multipart forms
- Labels
- Logos and watermarks

MINOLTA-QMS QFORM doesn't support color features.

QFORM allows you to use existing lineprinter and forms-printing applications on your magicolor 6110. This printer-resident application gives you the ability

to store PostScript forms on the printer's hard disk and fill those forms with your application's ASCII print stream. Features include:

Refer to the documentation that comes in the QFORM kit for installation and usage instructions.

PlanetPress

PlanetPress is an electronic forms package that allows the creation and modification of business forms, MICR checks, bar codes, and other pre-printed forms.

Refer to the documentation that comes in the PlanetPress kit for installation and usage instructions.

Optional Fonts

Optional fonts are available as files on floppy disks. This section describes how to download optional fonts from a floppy disk to the printer's hard disk.

At least one hard disk (internal or external) must be present on your printer before you can download a font. If more than one hard disk is available, the font automatically installs itself on the disk with the most free storage space.

CID Fonts

CID fonts are a format of composite (multibyte) Type 1 fonts that address the requirements of Far East markets. CID-keyed refers to the character identifier (CID) numbers that are used to index and access the characters in the font. A CID font consists of a large font file that contains all the character outlines and a small CMap file that contains a list of characters, encodings, and character identifiers. Each CID font can support many character set and encoding combinations. Full CID fonts are supported on the magicolor 6110.

Kanji Font Internal IDE Hard Disk

Attention

It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 113. In addition, always handle circuit boards by the edges only.

The preformatted Kanji font internal IDE hard disk contains Kanji fonts and other files. These fonts can be printed at a variety of point sizes and in different styles and resolutions.

After the Kanji hard disk is installed in your *magicolor* 6110, the Kanji fonts are available for use just as if they were resident on the printer.

What's in the Kit?

- Internal IDE hard disk drive preformatted with the following two Kanji Morisawa fonts: Ryumin and GothicBBB.
- IDE hard disk with ribbon cable attached
- IDE hard disk bracket
- 4 screws

Hardware Requirements

- A Macintosh, IBM PC, or compatible computer

Software Requirements

- An application (such as a word processing or desktop publishing package) that supports PostScript printing.
- If you're using a Macintosh, the following Macintosh system software:
  - KanjiTalk, version J1-6.0.7 or later
  - System File, version J1-6.0.7 or later
  - Laser Prep, version J1-6.0.1 or later
  - LaserWriter, version J1-6.0.2 or later
  - Print Monitor, version J1-1.3 or later
  - MultiFinder, version J1-6.1.7 or later
  - Macintosh OS 8.xJ
- If you're using a PC, the following system software:
  - If you're using Windows, version 3.1J or later
  - If you're using DOS, version 5.0J or later

Installing a Kanji Font Internal IDE Hard Disk Drive

Attention

The Kanji fonts are factory installed on a formatted hard disk drive. DO NOT reformat or initialize the Kanji internal IDE hard disk drive. Reformatting erases all data, fonts, and files on the disk. Your warranty does not cover this error.

The Kanji font internal IDE hard disk is installed on the controller board in the same way any internal hard disk is installed. See “Internal IDE Hard Disk Drive” on page 148 for detailed steps on installing an internal IDE hard disk drive.

Attention

If you already have an internal hard disk installed, you must remove it before you can install the Kanji disk.

Configuring the Printer for Kanji

See “Storage Devices” in the *CrownBook* for information on how to configure your printer’s memory when using an internal IDE hard disk drive.

Lower Feeder Unit (LFU)

Your printer supports up to two LFUs. The following steps apply to both single and dual LFU kit installations except where noted.

The duplex unit requires at least one LFU be installed.

Each LFU increases your printer’s media feed capacity by 500 sheets. LFUs are positioned under the printer, so no extra horizontal space is necessary.

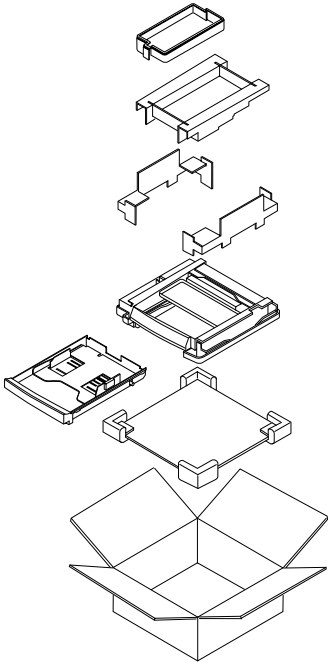
Attention

The lower feeder unit has grips on all four corners. When moving the printer with a lower feeder unit attached, hold the printer only by the lower feeder unit grips, not by the printer body.

Kit Contents

- Lower feeder unit (LFU)
- Universal media tray (500 sheets)
- One small metal bracket with thumb-screw (attached to the LFU)
- Two plastic side covers (one left and one right)

There may be other pieces shipped with the LFU*; however, they are not required for this procedure.*



Installation

WARNING!

Your printer weighs approximately 112 lbs (51 kg) with consumables. Be sure to have help when lifting and moving it.

ACHTUNG! Das Gewicht dieses Druckers beträgt mit Verbrauchsmaterial ca. 51 kg. Bitte versuchen Sie niemals, den Drucker alleine anzuheben oder zu transportieren.

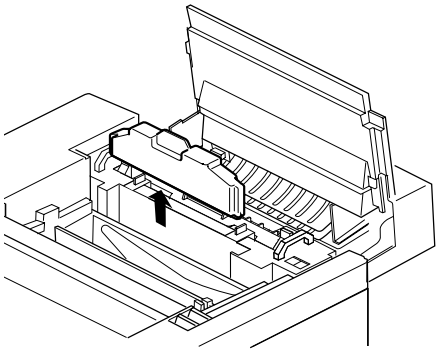
Attention

Never lift a printer with the fuser oil bottle installed. If other consumables are installed, be sure to keep the printer level when moving it to prevent accidental spills.

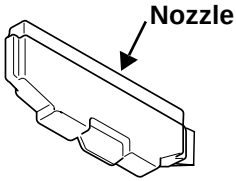
1 Remove the fuser oil bottle.

Attention

Hold a sheet of paper under the oil bottle as you remove it, so no oil drips into the printer.



2 Turn the nozzle on the opening on the bottom clockwise to close it. Place the oil bottle (nozzle up) in an oil-proof container such as a plastic bag, until you're ready to reinstall it.



3 Use the fuser oil remover syringe that came with your printer or an eye-dropper to remove any excess oil from the printer.

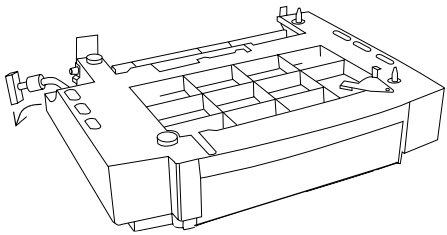
Dispose of the oil in accordance with local safety laws and regulations.

4 Remove the LFU from the shipping carton, and place it on a table or flat surface near the printer.

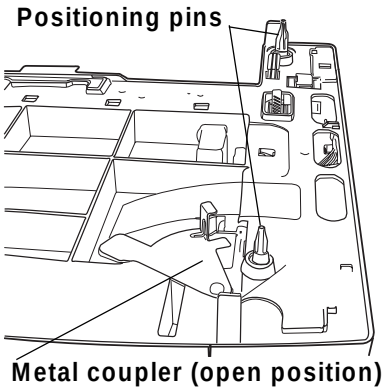
5 Remove any tape and packing material from the LFU.

*We **strongly** suggest that you save the packaging materials in case you ever need to move or ship the printer.*

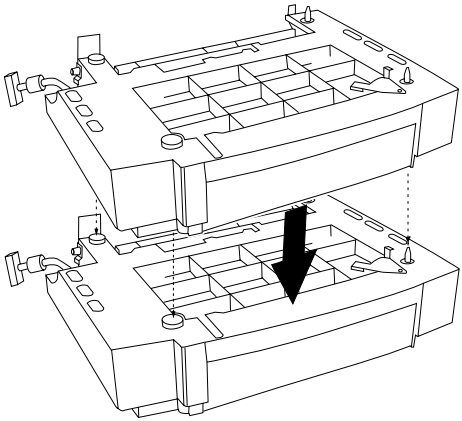
6 Position the LFU cable connector away from the rear of the LFU.



7 Check the front and rear positions of the positioning pins on the LFU(s), and make sure the metal coupler is in the open position.

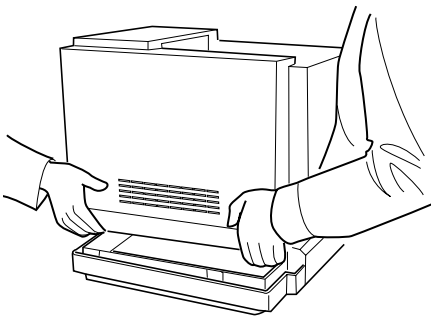


8 For dual LFU installations: After verifying that both metal couplers are in the open position, align the positioning pins and set one LFU on top of the other.



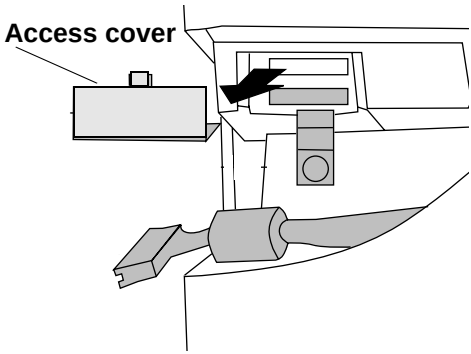
9 Set the printer on top of the LFU(s) .

Be sure to align the printer and LFU(s) as precisely as possible. Make sure the printer is not tilted on top of the LFU(s).



10 Remove the printer's connector access cover on the bottom left side of the printer by sliding the cover down and then out.

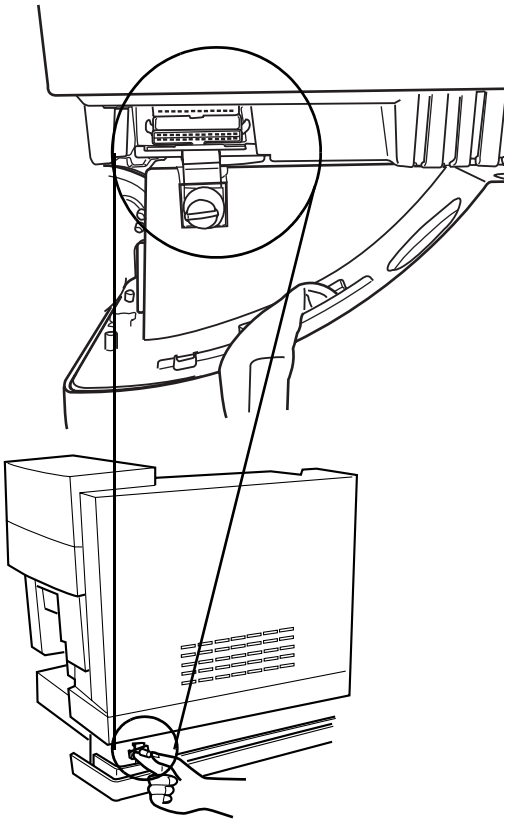
The connector access cover is replaced by the left side cover of the LFU.



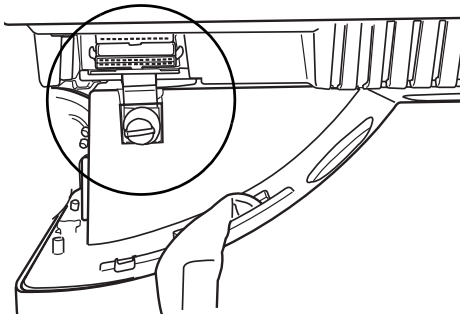
11 Install the metal bracket underneath the side of the printer just below the connector.

Holding the bracket at a slight angle, slide it up into the hole underneath the printer before setting it to vertical.

12 Make sure that the hole in the metal bracket is lined up with the corresponding hole on the input feeder.

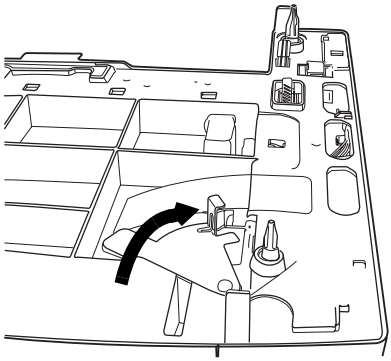


13 Tighten the thumbscrew to attach the bracket to the LFU.

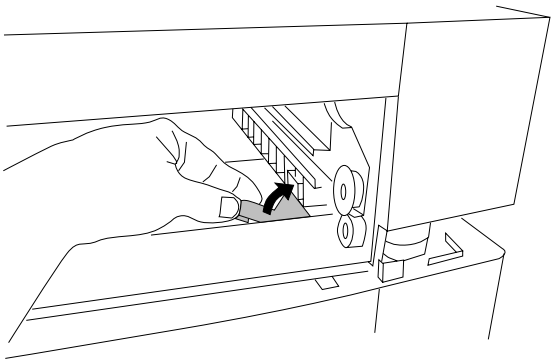


14 For dual LFU installations: Repeat steps 8–10 to secure the bracket installation between the upper and lower LFU.

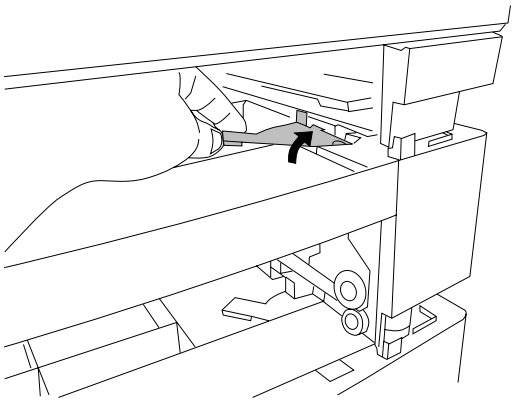
At this point of the installation, you should be able to see the metal coupler at the front upper-right corner of the printer's tray slot.



15 Push the handle of the metal coupler around so the hook is attached to the slot on the printer.



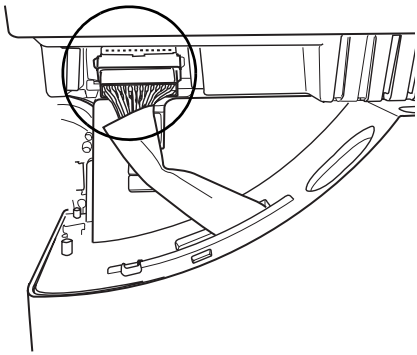
16 For dual LFU installations: Close the metal coupler inside of the other LFU's tray slot to secure both LFUs to the printer.



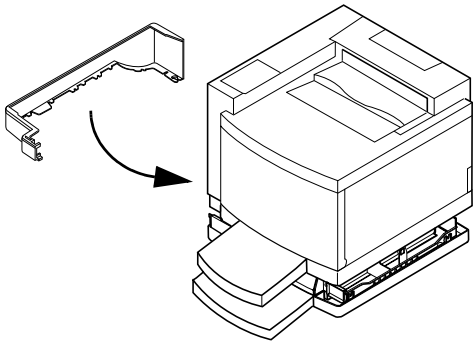
17 Connect the LFU cable to the white printer connector.

18 For dual LFU installations: Connect the lower LFU cable to the upper LFU connector.

19 Install the right side cover(s)



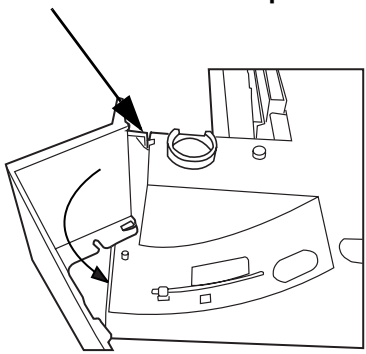
20 Install the left side cover(s).



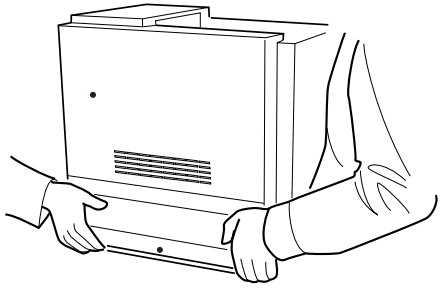
a Attach the rotation slot on the cover to the rotation pin on the LFU.

b Rotate the left side cover to snap it into place on the printer.

Rotation slot and pin



21 For best output quality and longest consumables life,

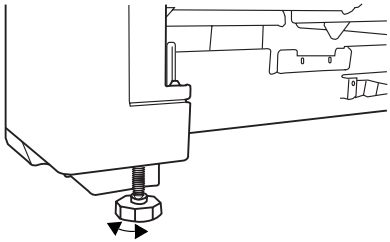


Attention

If you move the printer with the lower feeder unit(s) attached, lift the unit by the four bottom corners of the lowest feeder, not by the media tray(s) and not by the printer itself.

22 Adjust the anchor feet on the right side of the LFU(s) to level the printer.

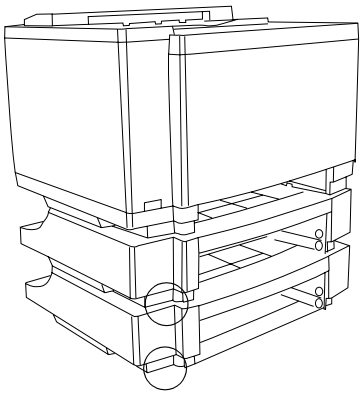
The printer must be on a hard, flat, level (within 1.5°) surface capable of supporting about 119 lbs (53.9 kg). A surface can be tested for levelness with a standard round pencil. If the pencil rolls, the surface is not level.



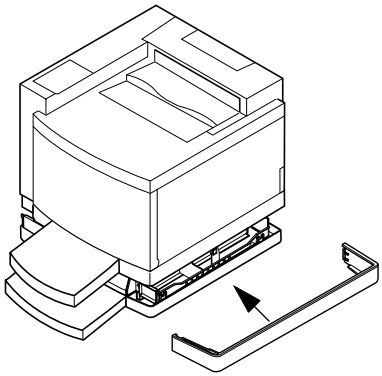
23 For dual LFU installations: Adjust both the upper and lower LFU anchor feet to level the printer.

24 Reinstall the fuser oil bottle.

25 Plug the printer in and turn it on.



In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."



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Media Trays

The printer comes with a 250-sheet universal media tray (the standard upper tray—tray 1). The lower feeder units have another 500-sheet optional media tray (the optional trays—trays 2 and 3). Also available is an optional letter/A4 media tray. These trays provide three main benefits:

- Expanded flexibility to switch media size, color, and type without having to unload and load media.
- Increased media-feed capacity.
- Adequate printer height to accommodate the optional duplex unit.

Keep replacement trays close by, so you can easily change media by slipping one tray out and another in.

250-Sheet Universal Tray (Upper)

- For paper sizes up to 13" x 19" (330.2 mm x 482.6 mm).
- Also accommodates the envelope or postcard feeder.

250-Sheet Letter/A4 Tray (Upper)

- For paper sizes up to letter (8.5" x 11.0" [215.9 mm x 279.4 mm])/A4 (8.2" x 11.7" [210 mm x 297 mm]).
- Also accommodates the envelope or postcard feeder.

500-Sheet Lower Feeder Unit Tray (Lower)

- For paper sizes up to 11" x 17" (279.4f mm x 432 mm).

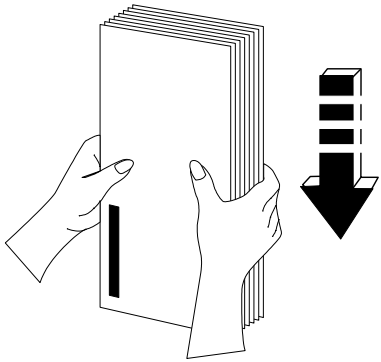
Envelope Feeder

An envelope feeder allows you to print on envelopes.

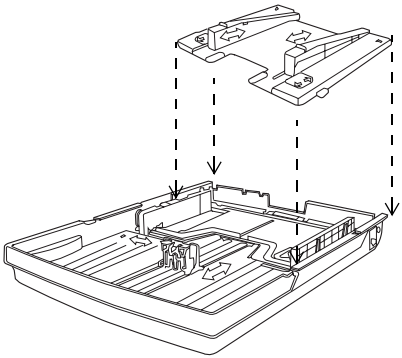
This feeder is available only for the upper media tray.

1. In the printer driver, select Thick Stock.
2. On the control panel, press the Media key to select printing on thick stock, if necessary.
3. Place the envelopes on a flat surface, and flatten them by pressing down the corners.
4. Flex the envelope stack (including the edges) to remove any stiffness.
5. Correct any bent corners, and then tap the envelopes on a flat surface to align them.
6. Remove the upper media tray from the printer (and remove any media in the tray).

   The envelope feeder can be installed only in the upper media tray.



7 Install the envelope feeder onto the tray as shown.



8 Adjust the media guides to the length and width of the envelopes.

Make sure the guides are snug enough to keep the envelopes straight, but not so tight that they buckle the envelopes.

9 Place the envelope stack into the tray with the printing-side up.

10 Slide the media tray back into the printer.

The media tray must be located in the upper position, not in the optional lower input feeder.

Japanese Postcard Feeder

A postcard feeder allows you to print on standard Japanese-size postcards.

This feeder is available only on the 100 volt model in the upper media tray.

1 In the printer driver (Paper tab, Paper Type option), select Thick Stock.

2 On the control panel, press the Media key to select printing on thick stock, if necessary.

3 Place the postcards on a flat surface, and flatten them by pressing down the corners.

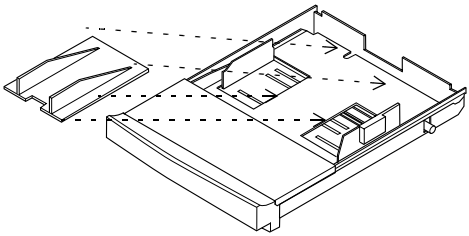
4 Flex the postcard stack (including the edges) to remove any stiffness.

5 Correct any bent corners, and then tap the postcards on a flat surface to align them.

6 Remove the upper media tray from the printer (and remove any media in the tray).

The postcard feeder can be installed only in the upper media tray.

7 Install the postcard feeder onto the tray as shown.



8 Adjust the media guides to the length and width of the postcards.

Make sure the guides are snug enough to keep the postcards straight, but not so tight that they buckle the postcards.

9 Place the postcard stack into the tray with the printing-side up.

10 Slide the media tray back into the printer.

The media tray must be located in the upper position, not in the optional lower input feeder.

Interfaces and Daughterboards

Interfaces

Your printer supports the following interface cards:

- CrownNet for Ethernet 10BaseT/100BaseTX (TCP/IP, NetWare, Ethertalk, LAN Manager/LAN Server) for an additional CrownNet for Ethernet connection
- CrownNet for Token-Ring (TCP/IP, NetWare, LAN Manager/LAN Server)
- Crown for DECnet-TCP/IP
- LocalTalk

You can install one of these interface cards in addition to the two standard interfaces—parallel and CrownNet for Ethernet (TCP/IP, NetWare, Ethertalk, LAN Manager/LAN Server). The printer's Simultaneous Interface Operation (SIO) allows all of these interfaces to be active at the same time. In other words, your printer can simultaneously communicate through all three ports with three hosts, either computers or networks.

If installing Token-Ring or LocalTalk optional interface cards, see the "Notices" section in the *Installation Guide* for FCC compliance classification information.

What's in the Kit?

An optional interface kit includes the following:

- An interface card
- Interface documentation (in hardcopy and/or on CD-ROM)

The kit may also include additional parts not required for network interface installation on this printer.

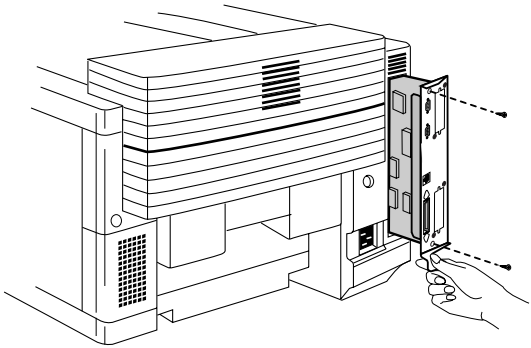
Installation

Attention

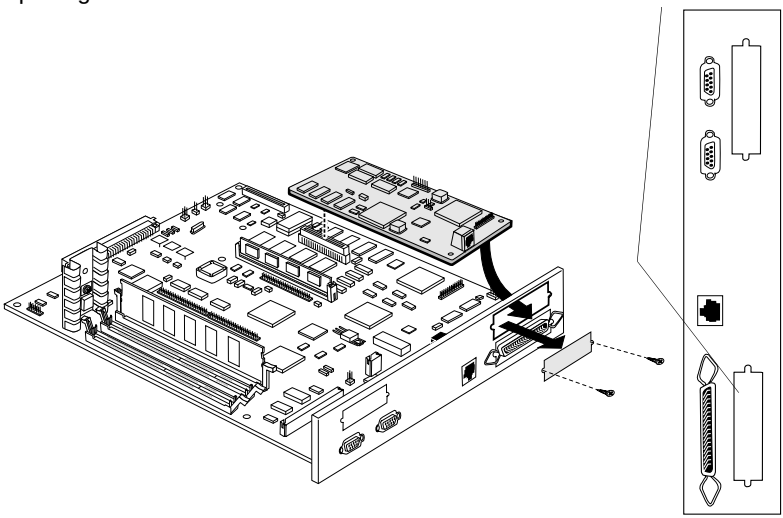
It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 113. In addition, always handle circuit boards by the edges only.

1 Turn off the printer, and then disconnect the power cord and all interface cables from the printer.

2 Loosen two screws (one on each end of the interface panel) and, using the tab on the lower side of the panel, pull the controller board from the printer.



3 Remove the two screws holding the metal plate over the optional interface opening.



The optional interface opening is located next to the "Parallel" port. Save the two screws. (You'll use them when you install the optional interface card.) You can dispose of the plate according to local regulations.

4 Attach the interface card to the controller board.

a Position the interface card so that its I/O connector slides into its opening in the interface panel and that its 80-pin connector aligns with the 80-pin connector on the controller board.

b Gently press the interface card down until its connector is fully seated and the card is secured by the plastic support post(s).

Attention

Make sure that the connectors on the interface card and controller board are properly aligned. Damage to the interface card and/or controller board could result if the pins are misaligned.

3 Secure the interface card to the interface panel with the two screws you removed earlier.

4 Reinstall the controller board.

Gently slide the controller board into the printer's tracks until it is fully seated, and then tighten the two screws.

5 Reconnect all interface cables.

6 Reconnect the power cord, and turn on the printer.

In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

7 Print a startup page.

Check that the startup page lists the interface (Optional NIC) just installed under "Options."

Using a Network Interface

Once a network interface is installed, refer to "Connecting the Printer to the Host Computer," in the *Installation Guide* and the *CrownBook* for information on connecting to the network, installing the software, and configuring the interface and the network.

SCSI Interface

The optional SCSI interface allows you to connect up to three optional SCSI devices, including a hard disk, and Jaz and Zip drives. These devices provide storage for fonts, emulations, and other files; increase the number of pages that can be collated; and provide a secondary storage area for spooled data, while providing virtual memory capabilities.

What's in the Kit?

An optional SCSI interface kit includes the following:

- SCSI interface card
- SCSI interface card ribbon cable
- Connector face plate
- Two larger screws, two smaller screws

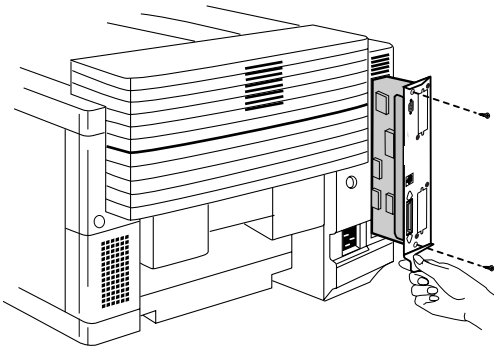
Installation

Attention

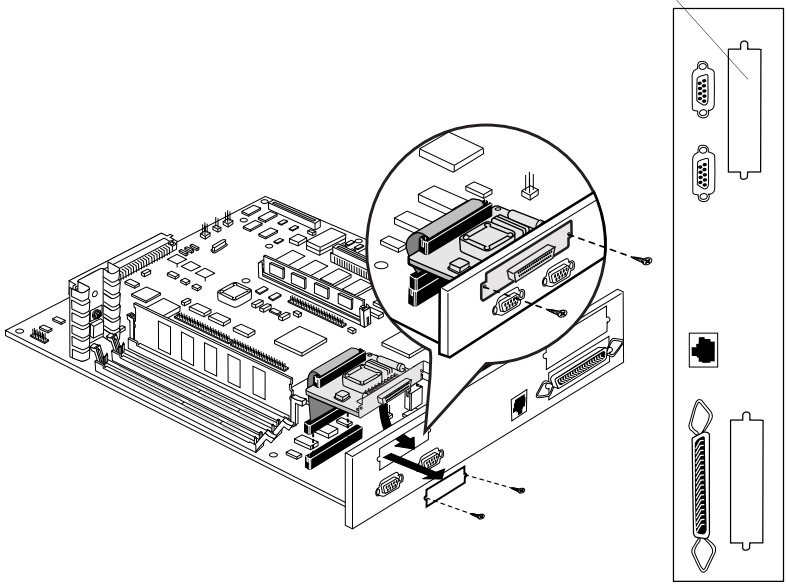
It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 113. In addition, always handle circuit boards by the edges only.

1 Turn off the printer, and then disconnect the power cord and all interface cables from the printer.

2 Loosen two screws (one on each end of the interface panel) and, using the tab on the lower side of the panel, pull the controller board from the printer.



3 Remove the two screws holding the metal plate over the SCSI interface opening.



You can dispose of the metal plate and screws according to local regulations.

4 Attach the ribbon cable to its connector on the SCSI interface card.

a Position the SCSI interface card so that its ribbon cable connector aligns with the SCSI connector on the controller board.

b Gently press the ribbon cable connector down until it's fully seated.

Attention

Make sure that the connectors on the ribbon cable and the controller board are properly aligned. Damage to the controller board could result if the pins are misaligned.

c Insert the SCSI interface card connector into its opening in the interface panel.

d Secure the SCSI interface card to the interface panel with the two larger screws in the kit.

5 Reinstall the controller board.

Gently slide the controller board into the printer's tracks until it's fully seated, and then tighten the controller board's two screws.

6 Reconnect all interface cables.

7 Reconnect the power cord and turn on the printer.

In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

8 Print a startup page.

Check that the startup page lists the interface (SCSI) just installed under "Options."

Using a SCSI Interface

Installing a SCSI interface allows the attachment of external SCSI storage devices, such as hard drives, and Jaz and Zip drives. Installing the SCSI interface kit will not allow you to print via SCSI.

Internal IDE Hard Disk Drive

Attention

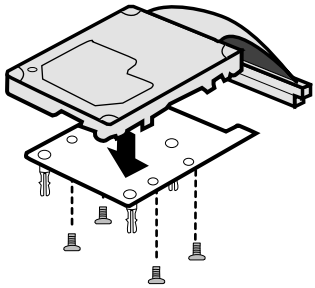
Make sure that the printer and all accessories are turned off before installing accessories involving the controller board.

One optional internal IDE hard disk is supported.

What's in the Kit?

The internal IDE hard disk drive kit includes the following:

- IDE hard disk with ribbon cable attached
- IDE hard disk bracket
- 4 screws



Installation

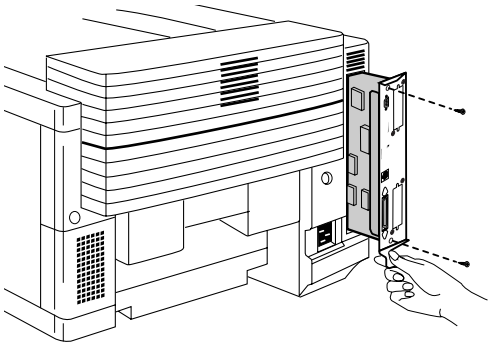
Attention

It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 118. In addition, always handle circuit boards by the edges only.

When installing or removing a hard disk, make sure that the metal support posts (on the hard disk) does not come in contact with any of the electrical leads on the chips mounted on the controller board. The controller board will not function if any of the leads are broken or shorted together.

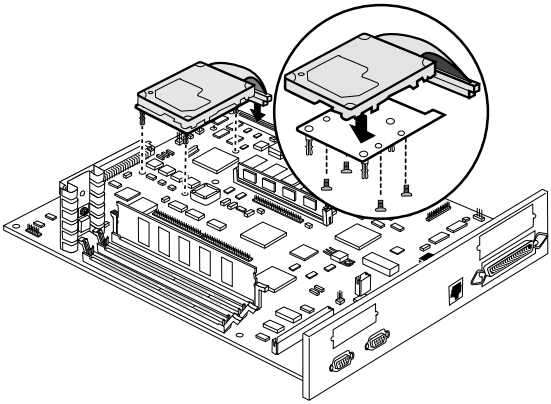
1 Turn off the printer, and then disconnect the power cord and all interface cables from the printer.

2 Loosen two screws (one on each end of the interface panel) and, using the tab on the lower side of the panel, pull the controller board from the printer.



3 Position the controller board on a flat surface so the controller board lies flat and the interface panel is facing you.

4 Attach the internal IDE hard disk drive to the hard disk bracket.



Attach the internal IDE hard disk drive to the bracket with the grooved-end of the bracket facing the ribbon cable. The screw holes in the bottom of the hard disk should match up with the holes on the hard disk bracket. Fasten the hard disk to the bracket with the screws provided.

5 Position the hard disk so that the four support posts face the controller board, the colored stripe on the ribbon cable faces away from you, and the connector is down.

6 Insert ribbon cable connector pin 1 (the colored stripe side of the cable) in hard disk connector pin 1.

Attention

Make sure that the ribbon cable connector and the controller board connector pins are properly aligned. Damage to the controller board could result if the pins are misaligned.

7 Press down gently but firmly on the cable connector until it is fully seated.

Attention

Do not push or pull with the ribbon cable. Use the cable connector.

8 Align the support posts with the holes on the controller board, and then press down to secure the hard disk to the controller board.

So that you don't stress the board, press one corner at a time to secure the hard disk to the controller board.

9 Reinstall the controller board into the printer.

Gently slide the controller board into the printer's tracks until it is fully seated, and then tighten the two screws.

10 Reconnect all interface cables.

11 Reconnect the power cord and turn on the printer.

In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

When you print a startup page, verify that the hard disk is listed.

SC-210 Color Convenience Copier

You can expand your magicolor 6110's functionality by connecting an SC-210 digital color convenience copier option to the standard parallel port on the printer. The SC-210 supports up to legal-size paper input. There are two versions available—with or without the 30-sheet Automatic Document Feeder (ADF).

Check the documentation included with your SC-210 for instructions on setup, configuration, and operation.

What's in the Kit?

The SC-210 kit includes the following:

- SC-210 color convenience copier
- Power cable, 220 V
- Power cable, 110 V
- Software CD-ROM
- Parallel interface cables (2)
- Documentation
- User warranty and registration card

Security Key

A security key is available to password-protect the Operator Control and the Administration menus. When the security key is installed, the Installation menu appears in the printer's configuration menu.

What's in the Kit?

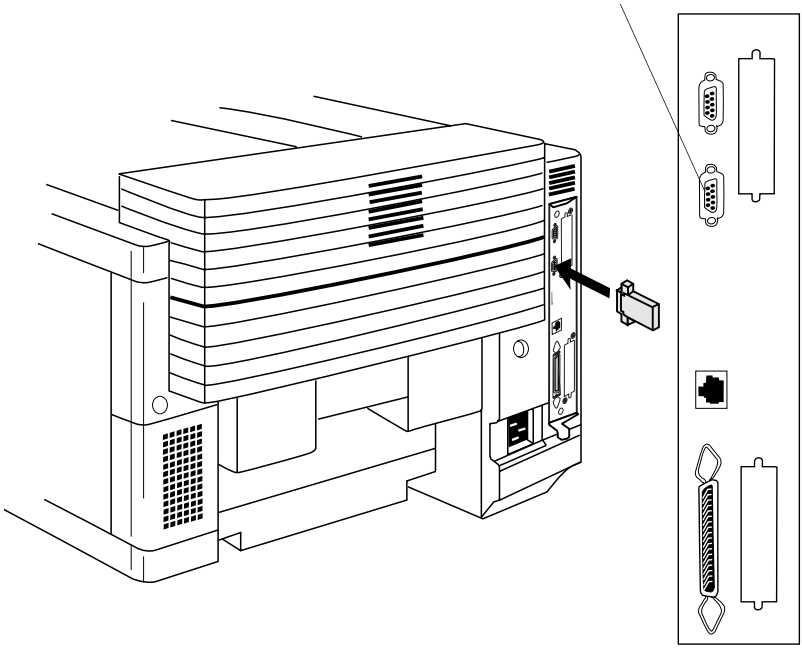
- A security key (9-pin connector labeled "Security")

Setting Configuration Menu Passwords

1 Insert the security key into the “Key” port on the interface panel.

Attention

Even though both the security key and serial interface have a DB-9 interface, the connectors are keyed, and they can’t be interchanged. Make sure that you install the security key only in the port marked “Key.”



The illustration shows the printer without the duplex unit. However, the instructions are the same for all models.

2 Press the Online key to take the printer off line.

3 Press the Menu key.

4 Access the Installation/Operator Passwrd or Administration/Admin Password menu.

You can use the Installation menu to password-protect just the Operator Control menu, just the Administration menu, or both.

5 Select the password(s).

Keep in mind that the password(s) you select also protect the Admin mode of Remote Console, available through MINOLTA-QMS PageScope.

Menu	Installation/Operator Passwrd Installation/Admin Password
Choices	Up to 16 characters (any letter, number, or symbol)
Default	Blank (no password)
Notes	Passwords are case sensitive and are entered as an alphanumeric string. If you choose a password that is not 16 characters long, press the Select key until you get to the rightmost character of the password field. Enter the password character string the same as you would enter an alphanumeric string.

6 Enable the password(s).

Menu	Installation/Use Operator Pwd Installation/Use Admin Pwd
Choices	**On**—Requires the correct password to access to the Administration and/or Operator Control menus. **Off**—Does not require a password to access the Administration and/or Operator Control menus.
Default	Off
Notes	Enter the passwords in the Installation/Operator Passwrd and Installation/Admin Password menus.

7 Save your changes and exit from the configuration menu.

8 Remove the security key, and store it in a secure location.

After you exit from the menu and remove the security key, the Installation menu is removed from the control panel message window.

9 Press the Online key to put the printer back on line.

Using Configuration Menu Passwords

Once a menu is password protected, you can't enter the menu or make changes in it until you enter a valid password.

Password protection does not prevent software commands from changing functions.

- **If a password is required** to enter the Operator Control or Administration menu, the message window displays

  ```
  ENTER PASSWORD
  ```

  when you use the Select key to enter the menu. Enter the password, or press the Menu key to return to the previous menu.

- **If you enter an invalid password**, the message window flashes

  ```
  INVALID PASSWORD
  ```

  for three seconds and then returns you to the configuration menu.

- **If you forget the password**, repeat the procedure in "Setting Configuration Menu Passwords" on page 152.

Time-of-Day Clock

The time-of-day clock provides time and date information on the startup page and in the accounting data.

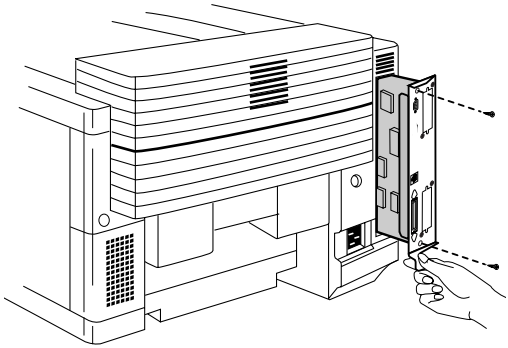
Installation

Attention

It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 113. In addition, always handle circuit boards by the edges only.

1 Turn off the printer, and then disconnect the power cord and all interface cables from the printer.

2 Loosen two screws (one on each end of the interface panel) and, using the tab on the lower side of the panel, pull the controller board from the printer.



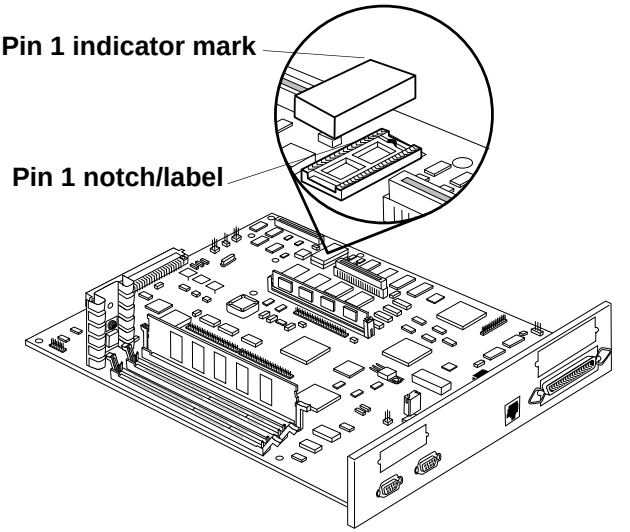
WARNING!

Because the time-of-day clock includes an internal battery, there is a danger of explosion if the clock is incorrectly installed or replaced. Replace it only with a supported MINOLTA-QMS time-of-day clock. Dispose of any used time-of-day clock in accordance with local laws and regulations.

ACHTUNG! Da der Uhrenbaustein eine interne Batterie enthält, besteht Explosionsgefahr, falls dieser falsch eingesetzt oder ersetzt wird. Er darf nur durch einen unterstützten Baustein ersetzt werden. Bitte entsorgen Sie den Baustein gemäß den geltenden Entsorgungsbestimmungen.

AVERTISSEMENT! Dû au fait que l'horloge interne de l'imprimante est munie d'une batterie interne, il y a un risque d'explosion si celle-ci est mal installée ou remplacée. La remplacer seulement avec une horloge supportée par MINOLTA-QMS. Se départir de toute horloge interne défectueuse en respectant les lois et réglementations en vigueur.

3 Attach the time-of-day clock to the controller board.



Attention

Make sure that the pins on the time-of-day clock are properly aligned with those in the receiving socket on the controller board. Damage to the time-of-day clock and/or controller board could result if the pins are misaligned.

a Locate the time-of-day clock socket on the controller board and the pin 1 notch or printed label.

b Locate the pin 1 indicator mark on the top of the time-of-day clock.

This mark may be a notch or a slight depression on one end of the clock.

c Align this indicator mark with the pin 1 notch or printed label on the controller board.

d Gently press down on the time-of-day clock until it's firmly seated.

5 Reinstall the controller board.

Gently slide the controller board into the printer's tracks until it is fully seated, and then tighten the two screws.

6 Reconnect all interface cables.

7 Reconnect the power cord and turn on the printer.

In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

The presence of the clock will be automatically sensed.

8 Print a startup page.

The time-of-day clock is not listed under "Installed Options" on the startup page, but the time will appear as System Date in the Printer Information column.

For instructions about setting the time-of-day clock, refer to the *CrownBook*.

6 Color Printing

Introduction

Your magicolor 6110 features advanced color laser technology that produces inexpensive and durable color prints at 1200x1200 dpi on plain paper, envelopes, glossy stock, labels, thick stock, transfer media, and transparencies.

Color Management and Control

The magicolor 6110 offers a host of color screening, matching, and calibration tools for both the beginner and professional color user.

MINOLTA-QMS QCOLOR Technology

Color management does not mean all devices will match exactly. It does ensure the closest possible color transformation. MINOLTA-QMS QCOLOR technology offers four methods for color matching across devices:

- MINOLTA-QMS QCOLOR automatic color correction
- Supplied ICC printer profiles
- Built-in color rendering dictionaries (CRDs)
- Supplied PANTONE®* Color matching tables

MINOLTA-QMS QCOLOR technology automatically optimizes color output to produce professional quality, colorized documents without the use of sophisticated manual optimization techniques.

The following is a summary of MINOLTA-QMS QCOLOR automatic color correction features:

- **Ease of use across applications:** With MINOLTA-QMS QCOLOR, it's as easy to get great color from a PowerPoint presentation as it is from a desktop publishing application, such as QuarkXPress. MINOLTA-QMS QCOLOR's color matching methods are simple for both novice and professional color users to navigate.
- **Single-button control:** Whether accessing through the printer driver, or from the printer's front panel, MINOLTA-QMS QCOLOR's single-button controls enable automatic correction of uncalibrated RGB or CMYK color files.
- **Printer-resident CMS:** Because MINOLTA-QMS QCOLOR automatic color correction is built into the printer, it works well in all computing environments and with most design, publishing, and office applications.

*Pantone, Inc.'s check-standard trademark for color reproduction and color reproduction materials.

- **Industry-standard profiles:** QCOLOR uses industry-standard ICC profiles for compatibility with popular input and output devices.
- **Supports host-based color management systems:** Easily disable MINOLTA-QMS QCOLOR automatic color correction when using host-based ColorSync or ICM color matching.
- **Profiles for common monitors and output devices:** MINOLTA-QMS QCOLOR offers default color matching for a variety of common monitors and printing presses.
- **Download device profiles:** For custom color matching, QCOLOR supports downloaded (to disk only) ICC profiles.
- **Support for Internet standard:** MINOLTA-QMS QCOLOR uses sRGB for Internet-standard default color matching.
- **Individual page element correction:** QCOLOR separately color corrects (matches) graphics, text, and images on a single page using printer-resident CRDs.

Further Information

For further information about MINOLTA-QMS color management, refer to the *CrownBook*.

7

Repacking the Printer

Attention

Failure to follow instructions as outlined in this chapter could result in voiding your warranty.

Storing the Printer

Keep the following in mind when storing the printer for an extended period:

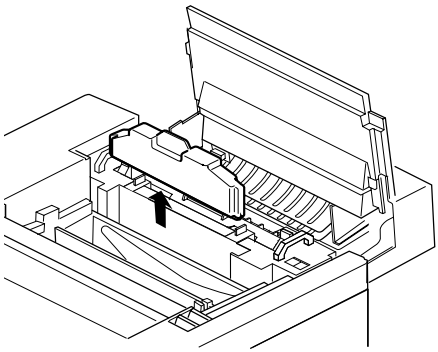
1 Unplug the printer.

2 Remove the toner cartridges from the printer and return them to their original packaging. If the original packaging is not available, protect the toner cartridges from spilling toner.

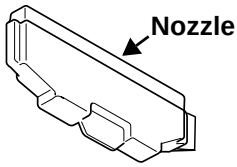
3 Remove the fuser oil bottle.

Attention

Hold a sheet of paper under the oil bottle as you remove it, so no oil drips into the printer.



4 Turn the nozzle on the opening on the bottom clockwise to close it. Place the oil bottle (nozzle up) in an oil-proof container, such as a plastic bag, until you're ready to reinstall it.



5 Use the fuser oil remover syringe that came with your printer or an eye-dropper to remove any excess oil from the printer.

Dispose of the oil in accordance with local safety laws and regulations.

Relocating Your Printer

Occasionally, you may have to move your printer to a different location, either nearby or to a distant location.

Attention

Never lift a printer with the fuser oil bottle installed. To avoid toner contamination during shipment, leave the OPC belt cartridge installed.

To avoid damage to your printer, we advise you to follow the next instructions very carefully.

1 Turn off the printer.

2 If the printer has accessories, such as a lower feeder unit, remove them.

3 If you are moving to a distant location, follow the instructions for repacking the printer.

4 Relocate the printer.

WARNING!

Your printer weighs approximately 101 lbs (46 kg) without consumables. Be sure to have help when lifting and moving it.

ACHTUNG! Das Gewicht dieses Druckers beträgt ohne Verbrauchsmaterial ca. 46 kg. Bitte versuchen Sie niemals, den Drucker alleine anzuheben oder zu transportieren.

5 Unpack and set up the printer in its new location.

6 Reinstall the accessories you removed in step 2.

*We **strongly** suggest that you save the packaging materials in case you ever need to move or ship the printer.*

Refer to the *Service & Support Guide* or www.minolta-qms.com for additional information on where to obtain assistance if necessary.

Repacking the Printer

If you need to relocate or ship your printer after installation, you must follow the procedures in this document to prevent damage to the printer and to keep your warranty valid.

*We **strongly** suggest that you save the packaging materials in case you ever need to move or ship the printer. If you're returning the printer for service, you don't need to return the accessories, cabinet, cleaning roller, documentation, fuser oil bottle, interface cables, media tray(s), power cable, or toner cartridges.*

Attention

Never lift a printer with the fuser oil bottle installed. To avoid toner contamination during shipment, leave the OPC belt cartridge installed.

MINOLTA-QMS cannot be held responsible for damage to your printer during shipment that results from the improper packaging of your printer. You must use the instructions given in this section before repacking the printer in its original shipping carton with the original packing materials. Original shipping cartons are secured to a pallet using disposable strapping and buckling supplies. These supplies must be replaced prior to shipping the printer. If you need replacement packaging, in the United States, call MINOLTA-QMS Spares at (251) 633-4300 extension 2530 and request catalog number 2600439-500. For locations outside the United States, refer to the *Service & Support Guide* or www.minolta-qms.com. If you return the printer for service, be sure to write the RMA (Return Merchandise Authorization) number you received from your customer support representative on the outside of the carton before shipping the printer.

If the printer is not strapped to the pallet or if the RMA number is not *prominently* visible on the outside of the return inventory, we will not accept receipt. You can also have a MINOLTA-QMS authorized service provider uninstall and repack your printer. For prices and availability, call 1 (877) 778-2657.

What's Involved?

Repacking your printer for shipment involves the following steps. Each is described in more detail in the following sections.

1. Remove the cables and media tray(s).
2. Remove the toner cartridges.
3. Prepare the fuser unit.

   This includes the fuser oil bottle, cleaning roller, and tension release levers.
4. Change the waste toner bottle.
5. Remove the duplex unit (if attached).
6. Remove the lower feeder unit(s) (if attached).
7. Pack the printer for shipment.

Remove the Cables and Media Tray(s)

1 Turn off the printer.

2 Remove the power cable and all interface cables.

3 Remove the media tray(s) from the printer.

Remove the Toner Cartridges

1 Open the printer's front and top covers.

Attention

If you have an optional duplex unit installed, always open the duplex unit's top cover before opening the printer's top cover.

Leave the covers open during the repacking procedure.

2 Remove the four toner cartridges, attach the protective shields over their magnetic rollers, and store them in their original packaging.

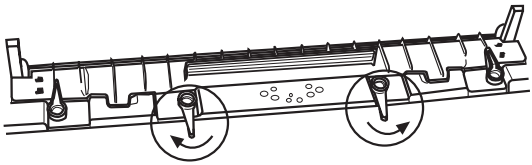
Prepare the Fuser Unit

WARNING!

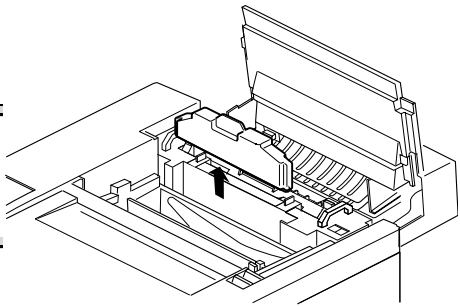
The fuser unit can become extremely hot and cause severe burns. Make sure the unit is cool before handling it.

ACHTUNG! Die Fixiereneinheit kann sehr heiß werden, so daß Verbrennungsgefahr besteht. Bitte lassen Sie die Fixiereneinheit einige Zeit abkühlen, bevor Sie diese berühren.

1 With the printer's top cover open, at the top of the fuser, rotate the two lock levers to release the oil bottle.



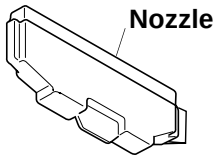
2 Remove the oil bottle.



Attention

Hold a sheet of paper under the oil bottle as you remove it, so no oil drips into the printer.

3 Turn the nozzle on the opening on the bottom clockwise to close it. Place the oil bottle (nozzle up) in an oil-proof container, such as a plastic bag, until you're ready to reinstall it.

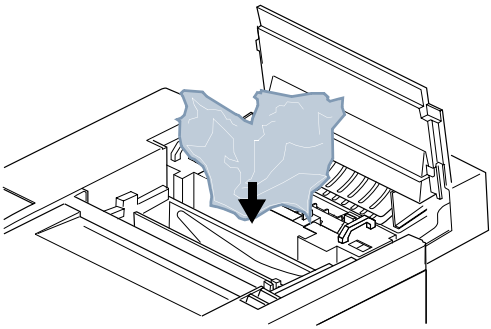


4 Use the fuser oil remover syringe that came with your printer or an eye-dropper to remove any excess oil from the printer.

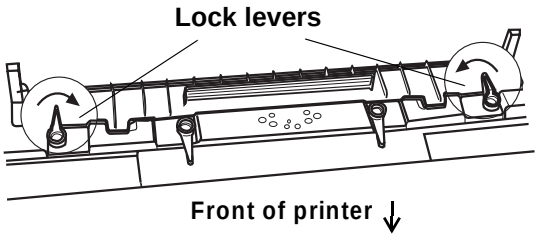
Dispose of the oil in accordance with local safety laws and regulations.

5 Stuff several clean, wadded paper towels into the space normally occupied by the oil bottle to absorb any residual oil during shipment.

Don't force the paper towels in, but make sure there are enough to fill the space.

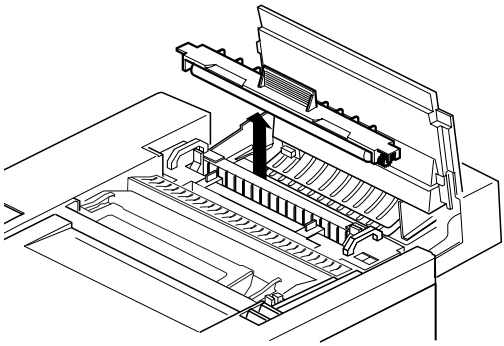


6 At the top of the fuser, rotate the two lock levers to release the cleaning roller.



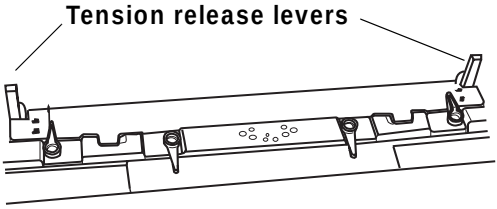
7 Remove the cleaning roller.

8 Store the cleaning roller in its original shipping bag.



If you're returning the printer for service, you don't need to return the cleaning roller unless instructed to do so by a MINOLTA-QMS Authorized Service Provider.

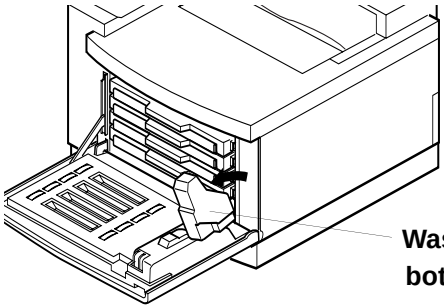
9 Pull the two tension release levers toward the front of the printer until they lock into place.



The tension release levers in their frontmost position protect the fuser rollers from damage during a move by removing the pressure between the two fuser rollers. They must be repositioned toward the rear of the printer before the cleaning roller can be reinstalled.

Change the Waste Toner Bottle

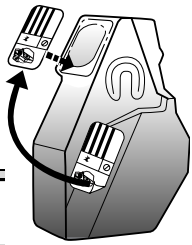
1 With the printer's front cover open, remove the waste toner bottle from the printer.



2 Use the label on the side of the waste toner bottle to seal the opening.

3 Place the old waste toner bottle in a container, such as a plastic bag, until you're ready to reinstall it.

4 Install a new waste toner bottle.



Attention

It is imperative that the printer ships with a new (empty) waste toner bottle.

5 Close the printer's top and front covers.

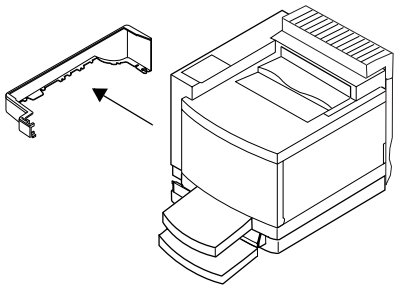
Remove the Duplex Unit

If you don't have a duplex unit installed, skip to the next section.

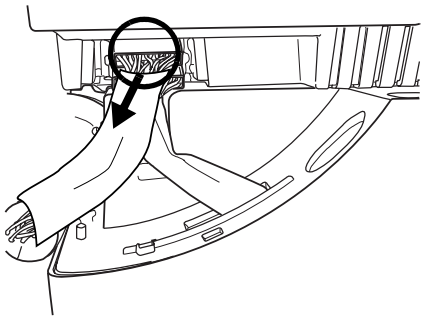
1 Close the printer's top and front covers.

2 Remove the left plastic side cover from the lower feeder unit.

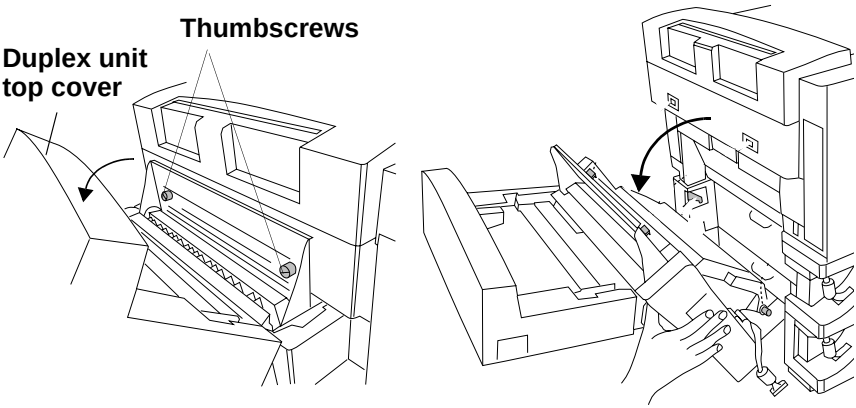
If you have two lower feeder units installed, remove the left plastic side cover from the top lower feeder unit only.



3 .Locate the cable at the left rear of the optional feeder that connects the duplex unit to the printer, and then unplug it.



4 Open the duplex unit top cover and loosen the two thumbscrews until the duplex unit moves freely away from the rear of the printer.

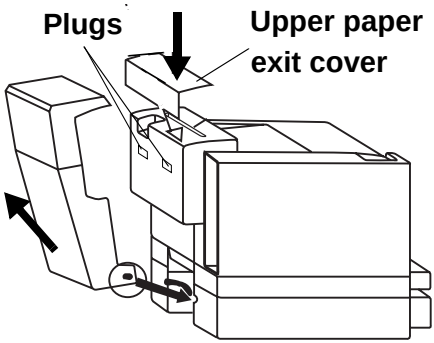


5 Lift duplex unit up and away from rear of printer.

6 Repack the duplex unit in its original shipping carton for storage or shipment.

7 Insert the two plugs and upper paper exit cover removed during installation.

If you're returning the printer for service, you don't need to return the duplex unit unless instructed to do so.



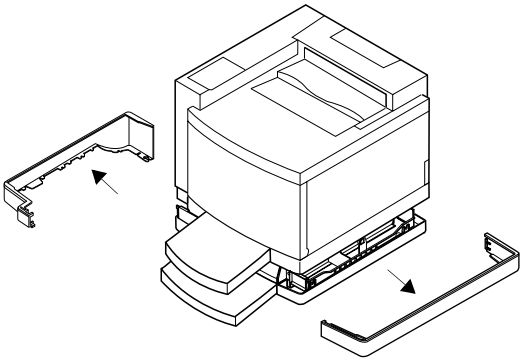
Remove the Lower Feeder Unit(s)

If you don't have a lower feeder unit installed, skip to the next section.

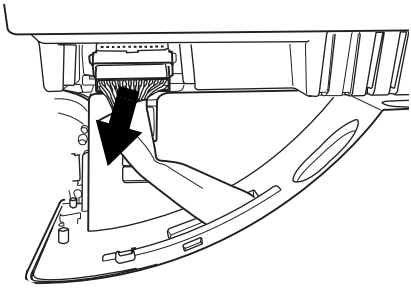
1 Make sure the printer's top and front covers are closed.

2 Remove the plastic side covers from the sides of the lower feeder unit.

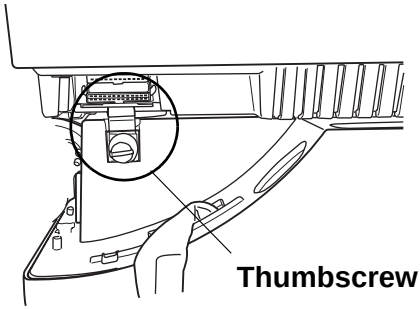
If you have two lower feeder units installed, remove the plastic side covers from the top lower feeder unit only.



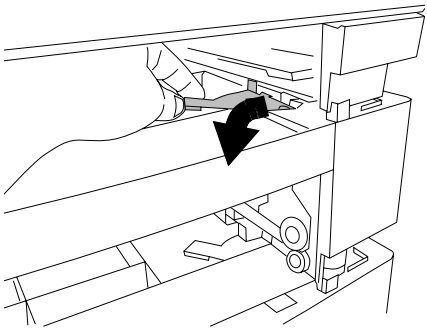
3 Locate the cable at the left rear of the lower feeder unit that connects it to the printer, and then unplug it.



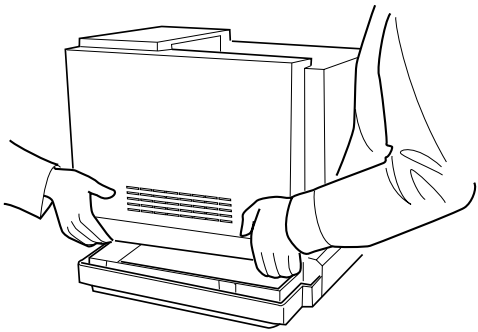
4 Loosen the thumbscrew that attaches the bracket to the lower feeder unit until the bracket moves freely away from the lower feeder unit.



5 Remove the media tray from the printer, and then rotate the metal coupler arm toward the front of the printer.



6 With the help of another person, lift the printer by its carrying grips from the lower feeder unit, and place the printer on a table.



WARNING!

Your printer weighs approximately 101 lbs (46 kg) without consumables. Be sure to have help when lifting and moving it.

ACHTUNG! Das Gewicht dieses Druckers beträgt ohne Verbrauchsmaterial ca. 46 kg. Bitte versuchen Sie niemals, den Drucker alleine anzuheben oder zu transportieren.

7 Repack the lower feeder unit in its original shipping carton for storage or shipment.

If you're returning the printer for service, you don't need to return the lower feeder unit unless instructed to do so.

Repack the Printer

If you need replacement packaging, in the United States, call MINOLTA-QMS Spares at (251) 633-4300 extension 2530 and request catalog number 2600439-500. In locations outside the United States, refer to the *Service & Support Guide* or www.minolta-qms.com.

Before packing the printer and strapping it to a pallet, verify that the actions described in the following list have been completed in this order.

Checklist

✓	Item	Should be...	Additional actions
	RMA number	Received	Before shipping, place the RMA number **prominently** on the outside of the box.
	Repacking kit, pallet, strapping and buckling supplies	Acquired, if necessary	
	OPC belt cartridge	Installed	
	Cables	Removed	
	Media tray(s)	Removed	
	Toner cartridges	Removed	
	Fuser oil bottle	Removed	Fuser oil remover syringe used to remove the oil, and paper towels inserted to absorb any residual oil
	Cleaning roller	Removed	
	Fuser tension release levers	In forward position	
	Waste toner bottle	Replaced	New waste toner bottle installed
	Duplex unit	Removed	
	Lower feeder unit(s)	Removed	
	Printer	Bagged	

Repacking

Attention

If the printer is not strapped to the pallet or if the RMA number is not *prominently* visible on the outside of the return inventory, MINOLTA-QMS will not accept receipt.

1 With another person's help, put the printer into the plastic bag, and place the printer onto the pallet.

2 Pack the printer for shipment as shown in the illustration.

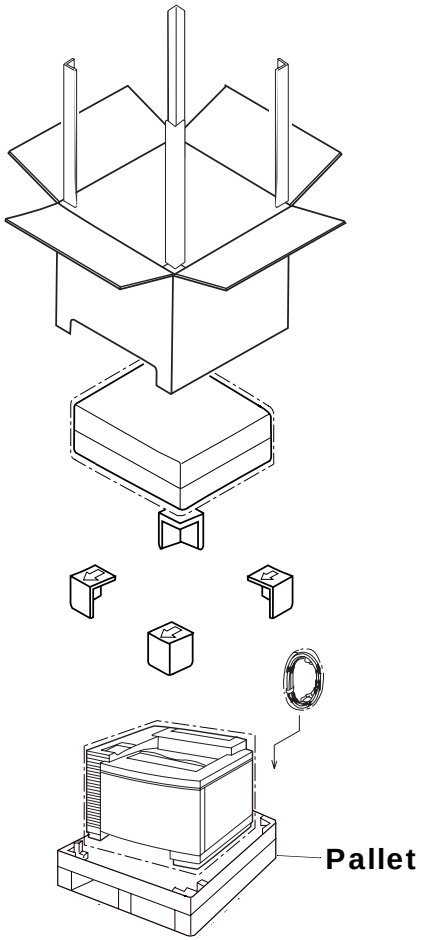
Ensure the shipping carton rests squarely on top of the pallet.

3 If you're also shipping the power cord and any manuals with the printer, place them in the shipping carton.

Don't ship these items if you're returning the printer for service.

4 Ensure that the top of the carton is securely taped.

5 Secure the shipping carton to the pallet using proper strapping and buckling. Contact your local dealer for strapping and buckling supplies.



Strapping/Buckling Kit Contents

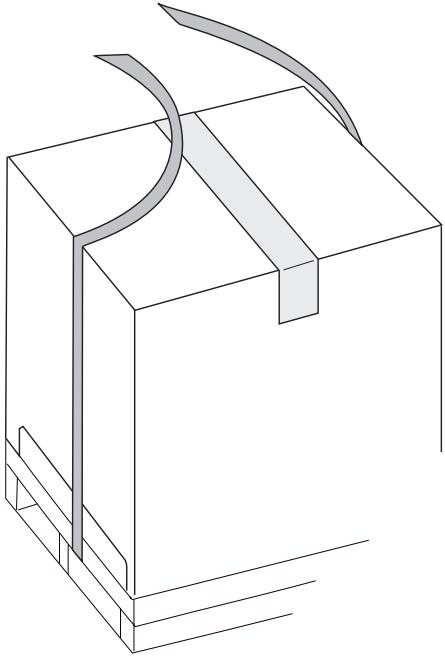
4 lengths of strapping precut to the appropriate length

4 buckles to secure the strapping

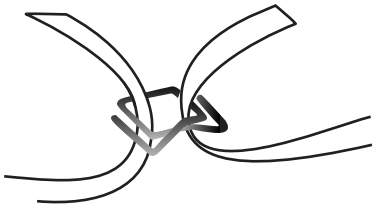
Strapping/Buckling Instructions

1 Thread one end of the strapping through the wooden pallet.

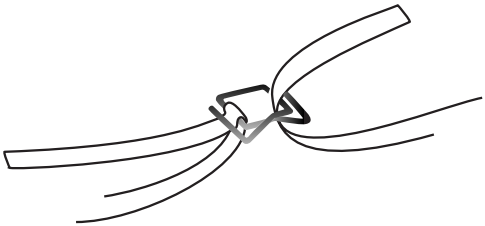
2 Pull the two ends of the strapping together at the approximate center of the top of the printer.



3 Thread both ends up through the center of the buckle.



4 Weave the slack of one end through the buckle.



5 Pull the slack on that end so that the strapping is taut in the buckle.

6 Weave the slack of the other end through the buckle.

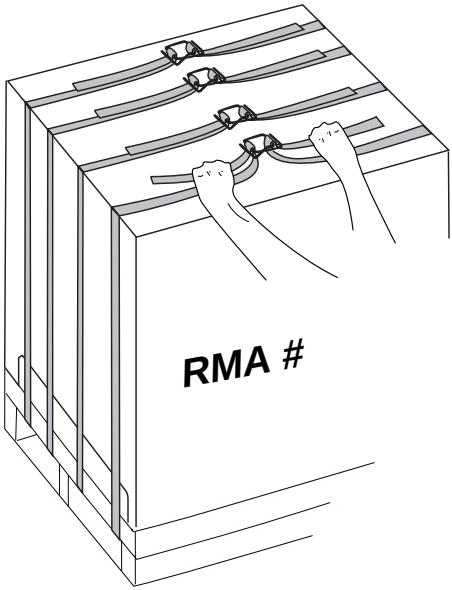
7 Pull all of the remaining slack of the strapping through this side of the buckle, until the buckle is taut against the printer box.

8 Pull the buckle against the printer as tightly as possible.

Some slack may still exist.

9 Repeat this procedure three more times, spacing the straps equidistant across the box.

10 Write the RMA number *prominently* on the carton.



Technical Specifications

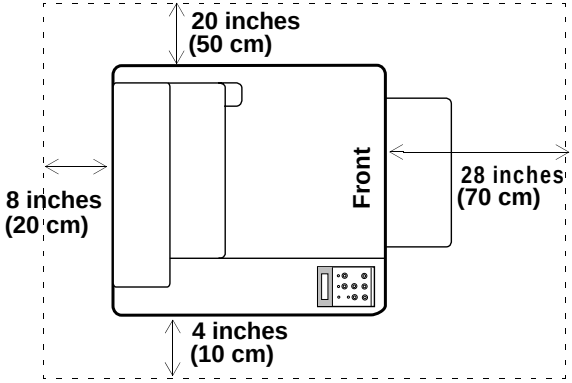
A

Requirements

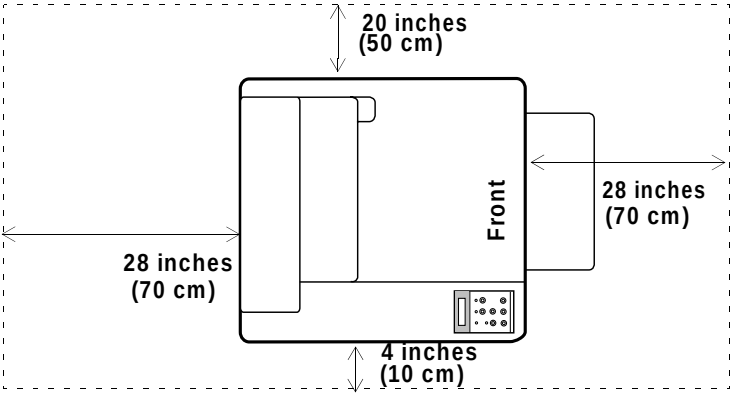
Space Requirements

The illustration below shows the amount of space required for operating the printer, replacing supplies, and removing media jams.

Top View—Basic Model



Top View with Duplex Unit



Allow enough space around the printer to allow adequate ventilation and easy servicing. For best output quality and longest consumables life, install the printer on a hard, flat, level (within 1.5°) surface.

If you have added accessories, the printer's height will increase by

Lower feeder unit	4.6" (116.8 mm) each
Duplex unit	0" (0 mm)

Power Requirements

WARNING!

Connect the power plug to an outlet with the same rated voltage as the printer (120 or 240 V), and fused for at least 15 amperes (8 amperes for 240 V). No other devices should be connected to this outlet, as overheating could cause fire or electric shock. The printer draws 11 A at 120 V, or 6 A at 240 V. Your printer requires a properly grounded AC outlet with a rated line voltage of 120 V or 220–240 V. The grounding terminal on the power cable should be connected to a good earth ground to prevent electric shock and fire.

ACHTUNG! Schließen Sie das Netzkabel an eine Stromquelle an, die gleiched Voltzahl wie der Drucker hat (120 oder 240 V) und mindestens 15 Ampere gesichert ist (8 Ampere für 240 V). Schließen Sie keine anderen Geräte an diesen Ausgang an, da sonst als Folge von Überhitzung Feuergefahr oder Gefahr eines Stromschalgs herrscht. Der Drucker zieht 11 A bei 120 V, oder 6 A bei 240 V. Ihr Drucker benötigt einen geerdeten AC Ausgang mit geregeltem Gleichstrom mit 120 V oder 220-240 V. Der Erdungsansluß des Stromkables sollte gut geerdet werden, um Stromschläge und Feuer zu vermeiden.

In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

Fused	For at least 15 amperes (8 amperes for 240 V).
Printer	Draws 11 A at 120 V, or 6 A at 240 V, or 13 A at 100 V.
Rated Line Voltage	Voltage of 100 V, 120 V, or 220–240 V must remain within ±10 percent of the rated line voltage for proper operation.
Amperage Capacity of the Electrical Outlet	Amperage capacity at least 1.2 times that used by the printer.
Maximum Electrical Current	Required during operation is 11 amps for a 120 V system, 6 amps for a 220–240 V system and 13 amps for a 100 V system.

Noise-generating Equipment	Should not be connected to the same electrical outlet as the printer.
Recommended Frequency	60 Hz ±2 Hz for a 120 V system, and 50 Hz ±2 Hz for a 220–240 V system.
Grounding	Your printer requires a properly grounded AC outlet.

Power	**Japan**	100 VAC 50–60 Hz 13 amps
	North America	120 VAC 50–60 Hz 11 amps
	Europe	220–240 VAC 50–60 Hz 6 amps
	Latin America	120 VAC 50–60 Hz 11 amps 220–240 VAC 50–60 Hz 6 amps
Voltage Fluctuation Rate	**Japan**	100 VAC ±10%
	North America	120 VAC ±10%
	Europe	220–240 VAC ±10%
	Latin America	120 VAC ±10% 220–240 VAC ±10%
Frequency Variation Rate	Within 50–60 ±3 Hz	

Location Requirements

- On a hard, flat, level (1.5° or less slant at any point around the machine) surface capable of supporting the printer, accessories, consumables, and media. Weights are shown below.

Component	Weight
Printer	101 lbs (46 kg)
Consumables (such as toner, OPC belt)	11 lbs (5.0 kg) (total)
Media	5.2 lbs (1.9 kg) per ream of 20 lb bond (75 g/m^2) paper
Lower feeder unit (each)	14.8 lbs (6.7 kg)
Duplex unit	5.3 lbs (2.4 kg)

A surface can be tested for levelness with a standard round pencil. If the pencil rolls, the surface is not level. Clear the area of any obstruction or items such as cables that might prevent the printer from sitting directly on the flat, level surface.

- In an area with an ambient temperature range of 50°–95° F (10°–35° C) and relative humidity range of 20%–80% (noncondensating).
- Away from cooling and heating sources, extreme temperature or humidity changes, direct sunlight, excessive dust, corrosive chemicals or vapors (such as ammonia), water pipes, refrigerators, and any strong electro-magnetic field (such as that created by an air conditioner).

  If the printer is located in a cold room that is rapidly heated, or if the printer is moved from a cold place to a warm, humid place, condensation may occur within the printer, degrading print quality. If this occurs, allow the printer to adapt to the environment for about one hour before use.
- Away from open flames or items that can easily burn.
- Away from water.

  If using a humidifier or water vaporizer in the room with the printer, use only purified or distilled water. Impurities in the water may be released into the air, where they can accumulate inside the printer and cause degraded printer output.
- Away from items that produce excessive vibration.
- At an altitude of 0–8202' (0–2500 m).
- Near your computer—6.5' (2 m) or less for an IEEE 1284 bidirectional parallel connection; cables for other connections may be longer.
- Close to an easily accessible grounded power supply on an exclusively dedicated power outlet.

Attention

Do not connect the groundwire to gas or water pipes or grounding for telephones.

- Not connected to the same electrical outlet as noise-generating equipment. If the printer is connected to the same circuit used by other high-current machines, such as a copier or air conditioner, or to an electrically noisy machine, low voltage or noise may cause overheating, computing errors resulting in data loss, and improper performance.
- In a well-ventilated area, but away from wind.
- With enough space to allow adequate ventilation and easy servicing.

WARNING!

Obstructing the ventilation grilles could present a fire hazard.

ACHTUNG! Abdeckung der Ventilator-Schlitze kann ein Feuer auslösen.

Computer Requirements

Printer performance depends upon the type of computer to which you connect it and the complexity of file to be printed. We recommend a Pentium-class computer with at least 16 MB of RAM (if you're using Windows Me/98/95) or 32 MB of RAM (if you're using Windows 2000/NT4).

ENERGY STAR Compliance

All models of the *magicolor* 2200 are compliant with US Environmental Protection Agency (EPA) ENERGY STAR regulations. After a user-configurable period of inactivity, the printer changes to a low-power state (the engine remains on, but the fuser turns off). When a print job is received, the printer returns to normal power.

Engine and Controller Specifications

Engine

Engine		Hitachi Color Laser SL-3	
Maximum duty cycle		**Monochrome**	**4-Color**
	Simplex letter/A4 pages per month	75,000 pages	18,750 pages

The duty cycle will be affected by the media type, percent coverage, and the number of monochrome versus color pages.

Print Speed—Simplex

The following table defines the maximum print speed in pages per minute (monochrome ppm) or in images per minute (4-color ipm)..

Page size	Monochrome ppm	2-Color ipm	3-Color ipm	4-Color ipm
A4	24	12 (8*)	8	6
Letter	24	12 (8*)	8	6
Legal***	12	6	4	3
A3	12	6 (4*)	4	3
Ledger	12	6 (4*)	4	3
Oversize	12	6 (4*)	4	3
Film	12	3.9 (3.3**)	3.4	3
Label	4.6	3.9 (3.2**)	3.4	3
Thick	4.6	3.9 (3.2**)	3.4	3

* Reduced 2-color page rate for Black/Yellow and Cyan/Magenta combinations
** Reduced 2-color page rate for Black/Yellow combination only
*** When color printing on legal paper, only A4 length is guaranteed.

Print Speed—Autoduplex

The following table defines the maximum print speed in pages per minute (monochrome ppm) or in images per minute (4-color ipm).

Page size	Mono-chrome ppm	2-Color ipm	3-Color ipm	4-Color ipm
A4	12	4	4	6
Letter	12	4	4	6
Legal	6	3	2	1.5
A3	6	3	2	1.5
Ledger	6	3	2	1.5
Oversize*	6	3	2	1.5
Film	N/A	N/A	N/A	N/A
Label	N/A	N/A	N/A	N/A
Thick	2.4	2.4 (2**)	2	1.5

* 12" x 18" (304.8 x 457.2 mm) and 13" x 18" (330.2 x 457.2 mm) media cannot be autoduplexed.
** Reduced 2-color page rate for Black/Yellow combination only.

General

Printer type	Desktop, non-impact, 4-color printer
Print method	**Scanner:** Semiconductor laser with rotating mirror **Recorder:** Black writing electrophotographic **Process:** Cyan, magenta, yellow, and black dry toner image transfer to print media **Fuser:** Heated rollers
Resolution	**Standard:** 1200x1200 dpi You may also need additional memory (DIMMs) for the following: ■ To print complex graphics or complex PostScript documents ■ For increased collation performance ■ For increased spooling performance

Toner	**Type:** Microfine, dry, single component **Packaging:** User-replaceable toner cartridges Keyed toner cartridges are available from your local vendor. Refer to the *Service & Support Guide* or www.minolta-qms.com for information.
Warm-up time	**Maximum:** 210 seconds **Typical:** 180 seconds from power on, assuming normal temperature and humidity
Input sources	**Standard:** 250-sheet universal tray **Optional:** up to two 500-sheet lower feeder unit trays 250-sheet letter/A4 tray
Output	250-sheet output tray on top of printer

Controller

CPU	IDT RC64474, operating at 200 MHz
Resident emulations	**PostScript**—Level 3 (600/1200 dpi) **HP PCL**—PCL5c, PCL XL, PCL5e/GL2 (HP PaintJet XL300 compatible, PCL 6; 300/600 dpi; 300/600/1200 dpi, GL2 only) *You can use any of the Hewlett-Packard series of drivers with this printer; however, we recommend the LaserJet 4P or DeskJet 1200C for monochrome, or the DeskJet 1200C for color. You can download Hewlett-Packard drivers from the Hewlett-Packard website at www.hp.com. We recommend that if you print using a Hewlett-Packard printer driver, you disable PJL commands within the driver settings.* **PDF**—Version 1.2 **HP-GL**—7475A/7550/Draftmaster (300/600 dpi) **Lineprinter**—(600 dpi)
Optional emulations	**ImageServer** (monochrome only) **CGM** **LN03 Plus** (300 dpi monochrome only)

Fonts	**PostScript**—137 resident PostScript fonts that can be scaled from 4 points upward and rotated to any angle in 1° increments; all typefaces have multilingual character sets **HP PCL 5e, 5c**—45 scalable and 9 bitmap fonts **PCL 6** **PCL XL**—45 scalable and 9 bitmap typefaces **HP-GL**—40 resident HP-GL symbol sets **Type 1 / Type 3 Support**—Support for Type 1 and Type 3 host-resident downloadable PostScript fonts **TrueType**—Support for Type 42 (PostScript format) host-resident downloadable TrueType fonts, support for TrueType fonts in PCL
Kanji fonts	**Hard disk**—MINOLTA-QMS Kanji Internal IDE Hard Disk Drive with two Morisawa fonts
Standard interfaces	**CrownNet Ethernet**—10BaseT/100BaseTX **Parallel**—Centronics/IEEE 1284 bidirectional
Optional interfaces	**Network interface—**Support for one optional network interface (CrownNet for Ethernet, supporting EtherTalk, LAN Manager/LAN Server, Netware, and TCP/IP; CrownNet for Token-Ring, supporting LAN Manager/LAN Server, NetWare, and TCP/IP; or Crown for DECnet-TCP/IP) **SCSI interface—**Support for up to 3 external SCSI hard disks (up to 2 GB), Jaz drives or Zip drives
RAM	**Type:** PC-100 Compliant SDRAM DIMMs **GN model base system RAM:** 192 MB **Total RAM:** Upgradable to 384 MB (through 3 DIMM connectors)
Optional RAM	32, 64, and 128 MB DIMMs
System software	Softloadable; stored in Flash ROM
Internal IDE hard disk	**GN model:** Optional, up to 2.2 GB *For information about hard disks recommended for your printer, see the magicolor 6110 Answer Base through the Internet at www.minolta-qms.com/support/, or contact Support. Refer to the* Service & Support Guide *for more information.*

Time-of-day clock	Optional
Job accounting	Crown job accounting; requires an optional internal IDE hard disk drive
Security key	Optional
Warning function convenience	Optional, BuzzBox (light/buzzer printer warning device); operates over a parallel connection
Color convenience copier	Optional, SC-210 with Automatic Document Feeder (ADF); operates over a parallel connection

Electrical

Voltage and Power

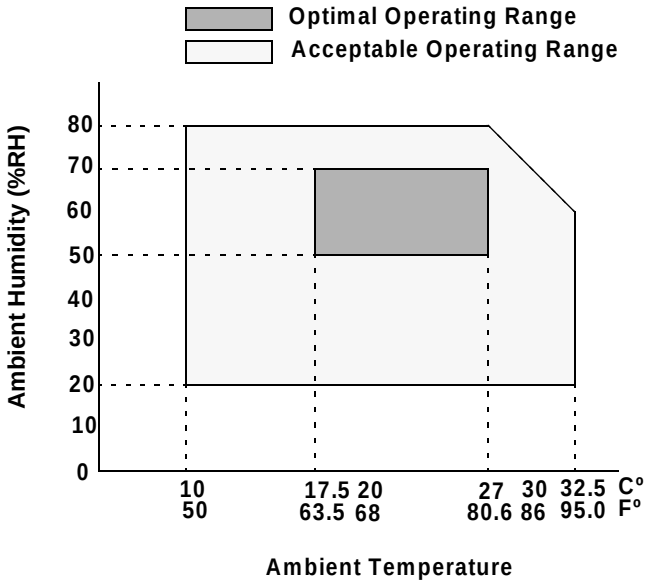
Voltage and frequency	**US:** 120 volts ±10% at 60 Hz ±2 Hz **Japan:** 100 volts ±10% at 50/60 Hz ±2 Hz **International:** 220-240 volts +6/-10% at 50 Hz ±2 Hz		
Phase	Single		
Power consumption	**Mode**	**Average**	**Maximum**
	Operation **Standby** **Power saver**	600 watts 200 watts	1350 watts 1350 watts 45 watts
Certification	ENERGY STAR compliant		

Current

Mode	Average	Maximum
Operation **Standby** **Power saver mode**	5 amperes 1.7 amperes	11 amperes 11 amperes 0.40 amperes

Environmental

Noise level	**Printing:** Less than 55 dB (A) **Standby:** Less than 41 dB (A)
Relative humidity	**Operating:** 20-80% RH (noncondensing) **Transportation/Storage:** 10–90% RH (non-condensing)
Temperature range	**Operating:** 50-90.5° F (10-32.5° C) **Transportation/Storage:** 32-95° F (0-35° C)
Altitude	**Operating:** 0-8202 ft (0-2500 m)
Inclination	**Operating:** 1.5° or less slant at any point around the machine



Physical

	Main Body	Main Body with Lower Input Feeder	Main Body with Duplexer and Lower Input Feeder
Dimensions	**W:** 24.2 in., 615 mm **H:** 16.5 in., 420 mm **D:** 21.3 in., 540 mm	**W:** 24.2 in., 615 mm **H:** 22.0 in., 560 mm **D:** 21.3 in., 540 mm	**W:** 24.2 in., 615 mm **H:** 24.0 in., 610 mm **D:** 24.4 in., 620 mm
Weight (excluding consum-ables)	**Unpacked:** 101 lbs (46 kg)	**Unpacked:** Printer: 119 lbs (54 kg) Lower Input Feeder: 24 lbs (11 kg)	**Unpacked:** Printer: 119 lbs (54 kg) Lower Input Feeder: 24 lbs (11 kg) Duplex Unit: 26 lbs (12 kg)
Weight (including consum-ables)	**Shipping:** 145 lbs (66 kg)	**Shipping*:** Printer: 145 lbs (66 kg) Lower Feeder Unit: 31 lbs (14 kg)	**Shipping*:** Printer: 145 lbs (66 kg) Lower Feeder Unit: 31 lbs (14 kg) Duplex Unit: 35 lbs (16 kg)
Notes	* Shipped separately.		

Print Media

Delivery—output tray	**Output:** Face-down **Capacity:** 250 sheets of 20 lb bond (75 g/m^2) paper Remove transparency media as soon as possible from the output tray to avoid static buildup.
Input sources	**Upper input feeder (250-sheet universal or letter/A4 tray):** Paper, envelopes*, glossy stock, labels, postcards*, thick stock, transfer media, transparencies **Optional lower feeder unit(s) (500-sheet tray):** Plain paper only * With special feeders installed.

Tray capacity	**Upper Input Feeder:** Loading height: 1.02 in. (26 mm) Standard universal media tray: Paper—About 250 sheets of 20 lb bond (75 g/m²) paper Transparencies—About 50 sheets Envelopes—Up to 15, depending on the thickness of the envelopes Labels—About 80 sheets Optional letter/A4 media tray: Paper (letter/A4 size)—About 250 sheets of 20 lb bond (75 g/m²) paper **Lower Feeder Unit:** Loading height: 2.04" (52 mm) Paper only—About 500 sheets of 20 lb bond (75 g/m²) paper
Media sizes and weights	See “Using Media” on page 29.
Media type	Cut-sheet
Notes	The maximum media weight supported for duplex printing is 28 lb bond (105 g/m²). Universal trays are not interchangeable between the upper input feeder and the optional lower feeder unit(s). For the magicolor 6110, universal is the tray size, not the paper size called Universal on other MINOLTA-QMS products. Up to two lower feeder units may be installed.

Consumable Life Expectancies

The stated life expectancy of each consumable is based on printing under specific operating conditions, such as media type, number of color planes, page size, and page coverage (usually 5% coverage of letter/A4-size media). The actual life expectancy will vary depending on these and other printing variables, including continuous or intermittent printing, ambient temperature, and humidity.

Consumables for the magicolor 6110 are available from your local vendor. Refer to the Service & Support Guide *or www.minolta-qms.com for information.*

Cleaning roller	20,000 pages** at 5% coverage of each color	
Fuser oil bottle	12,000 pages.** Fuser oil bottle life is media dependent: coarser paper requires more oil.	
OPC belt cartridge	Maximum life—120,000 planes* (usually occurs with continuous use; minimum life—60,000 planes, may occur with job sizes averaging one page although other factors also affect cartridge life.	
Toner cartridges	**Black**	14,000 pages* per cartridge @ 5% coverage
	Yellow	8,500 pages* per cartridge @ 5% coverage
	Magenta	8,500 pages* per cartridge @ 5% coverage
	Cyan	8,500 pages* per cartridge @ 5% coverage
	The toner cartridges in many laser printers are sensitive to bright light because they contain a light-sensitive print drum. The toner cartridges in your magicolor 6110 do not contain a print drum and, therefore, are not sensitive to light. The set of starter toner cartridges that are shipped with the printer have less capacity and will only print 1/2 of the number of pages listed for replacement toner cartridges.	
Waste toner pack	18,000 pages** at 5% coverage of each color	
Ozone filter	12 months	

Notes	*A **plane** is a single pass of the OPC belt (one toner color). For example, a one-color, single-sided (simplex) print job makes one pass (one plane), and a two-color print job makes two passes (two planes). **A single-sided **page** (also called a **face**) consists of four passes (or planes) of the OPC belt, since most color print jobs use all four toner colors. A two-sided (also known as duplex or two-faced) color page may consist of up to eight passes of the OPC belt, since most color print jobs use all four toner colors. Consumable life is expressed in simplex letter/A4 pages (1 face). A duplex page (2 faces) is equivalent to two simplex pages. The number of sheets printed and faces printed shown on the startup page differs from the number of sheets printed and faces printed statistics in CrownView and on the consumables statistics page (Operator Control/Consumables/Print Statistics). The numbers on the startup page refer to number of sheets printed and faces printed during the lifetime of the printer. The numbers in CrownView and on the consumables statistics page refer to the number of sheets printed and faces printed to date during the current consumables tracking period (Administration/Consumables/Start Period menu).

Refilled toner cartridges may produce variations in toner quality and reliability and can reduce the print quality of your documents. Any damage to the printer or quality problems caused by a refilled toner cartridge use will void your warranty.

Use of consumables not manufactured by MINOLTA-QMS or use of non-supported print media may cause damage to your printer and void your warranty. If MINOLTA-QMS printer failure or damage is found to be directly attributable to the use of non-MINOLTA-QMS consumables, print media, and/or accessories, MINOLTA-QMS will not repair the printer free of charge. In this case, standard time and material charges will be applied to service your printer for that particular failure or damage.

To order consumables and accessories, go to www.q-shop.com or check the *Service & Support Guide* for the MINOLTA-QMS office closest to you.

Document Option Commands

This lists the supported Document Option Commands (DOCs) for your magicolor 6110. The commands are grouped by feature type.

Each command is preceded by either a DOC statement (%%) or an IncludeFeature statement (%%IncludeFeature). Refer to the *Crown Document Option Commands* manual for information on all other commands.

Supported DOCs

Header/Trailer Page Commands

Print charge number	%%ChargeNumber
Print copyright statement	%%CopyRight:
Print document creator	%%Creator:
Print creation date and time	%%CreationDate:
Print current date	%%Date:
End comments	%%EndComments
Print document owner	%%For:
Print document host	%%Host:
	%%Pages
Job completion notification via email	%%Notify
Select page order	%%PageOrder
Save job for reprinting (proof then print)	%%Retain: Proof
Print routing information	%%Routing:
Print document title	%%Title:
Print version and revision	%%Version:
Print header page	%%IncludeFeature: header
Print trailer page	%%IncludeFeature: trailer

HP-GL Emulation Commands

Select enhanced resolution	%%IncludeFeature: enhanced
Expand plot	%%IncludeFeature: expand
Select original paper size	%%IncludeFeature: size
Select pen width and color	%%IncludeFeature: pen
Select plotter	%%IncludeFeature: plotter
Scale the image	%%IncludeFeature: scaling
Set origin	%%IncludeFeature: origin

HP PCL 5e Emulation Commands

Install object	%%IncludeFeature: install
Remove object	%%IncludeFeature: remove
Remove resource	%%IncludeFeature: removeresource
Retain temporary	%%IncludeFeature: retaintemporary
Select default font	%%IncludeFeature: font
Select default font ID	%%IncludeFeature: fontid
Reset	%%IncludeFeature: reset
Select symbol set	%%IncludeFeature: symbolset
Set carriage return to CR+LF	%%IncludeFeature: criscrlf
Set linefeed to CR+LF	%%IncludeFeature: lfiscrlfl
Set number of lines per inch	%%IncludeFeature: linesperinch|
Set point size	%%IncludeFeature: pointsize
Resource	%%IncludeFeature: resource

Lineprinter Emulation Commands

Select font for current job	%%IncludeFeature: font
Set point size for current job	%%IncludeFeature: pointsize
Specify character map type	%%IncludeFeature: map
Number lines	%%IncludeFeature: number
Set tabs	%%IncludeFeature: tabs
Set linefeed to CR+LF	%%IncludeFeature: lfiscrlf
Set carriage return to CR+LF	%%IncludeFeature: criscrlf
Set formfeed to CR+FF	%%IncludeFeature: ffiscrff
Wrap lines	%%IncludeFeature: autowrap
Set number of lines per page	%%IncludeFeature: linesperpage
Set margins	%%IncludeFeature: lpmargins
Set orientation	%%IncludeFeature: lporientation

PostScript Emulation Command

SC 210 to set PostScript protocol	%%IncludeFeature: parpsprotocol x

CCITT Groups 3 and 4 Commands

Start decompression	%%ImageData
Set encoded byte flag	%%EBAMode
Set end of block	%%BlockEnd
Set line end	%%LineEnd
Eject page	%%PageEnd

Set image position	%%ImagePosition
Invert image	%%InvertImage
Set dpi for image expansion	%%DPI
Set data compression	%%Compression
Reverse bits	%%BitReverse
End print job	%%JobEnd
Set image size	%%ImageSize
Set image rotation	%%Rotation
Set source image origin	%%SourceImageOrigin
Set source image position	%%SourceImagePosition

Document Formatting

Logical page orientation	%%IncludeFeature: pageorientation
Number up printing	%%IncludeFeature: pagegrid
Offset logical page	%%IncludeFeature: pageoffsets
Print borders	%%IncludeFeature: border
Scale logical page	%%IncludeFeature: pagescaling
Print background images	%%IncludeFeature: background
Set printer resolution	%%IncludeFeature: resolution
Print page range	%%IncludeFeature: pagerange
Duplex printing	%%IncludeFeature: duplex
Collate print job	%%IncludeFeature: collate
Logical page size	%%IncludeFeature: pagesize
Select number of copies	%%IncludeFeature: numcopies
Select paper	%%IncludeFeature: input
Select orientation	%%IncludeFeature: orientation
Select emulation	%%IncludeFeature: emulation
Logical margins	%%IncludeFeature: margin
New page layout	%%IncludeFeature: newlayout
Select color separations	%%IncludeFeature: colorseparation
Select color or monochrome	%%IncludeFeature: colormodel
Media type	%%IncludeFeature: mediatype
Booklet printing	%%IncludeFeature: booklet

Job and Subjob Boundary Commands

Sessions (only via network interface)	%%Sessions
End of document	%%EndOfDocument <ESC>%-12345X

LN03 Plus Commands (Optional Emulation Required)

Identify product	%%IncludeFeature: product
Control line wrap	%%IncludeFeature: autowrap
Specify default paper size	%%IncludeFeature: paper_size
Control transformation point	%%IncludeFeature: paper_size_override
Adjust image horizontally	%%IncludeFeature: xorigin
Adjust image vertically	%%IncludeFeature: yorigin
Set power-up configuration	%%IncludeFeature: reset_override

CALS Commands (Optional Emulation Required)

Automatic rotation of image	%%IncludeFeature: autorotation
Automatic scaling of image	%%IncludeFeature: autoscaling

TIFF Commands (Optional Emulation Required)

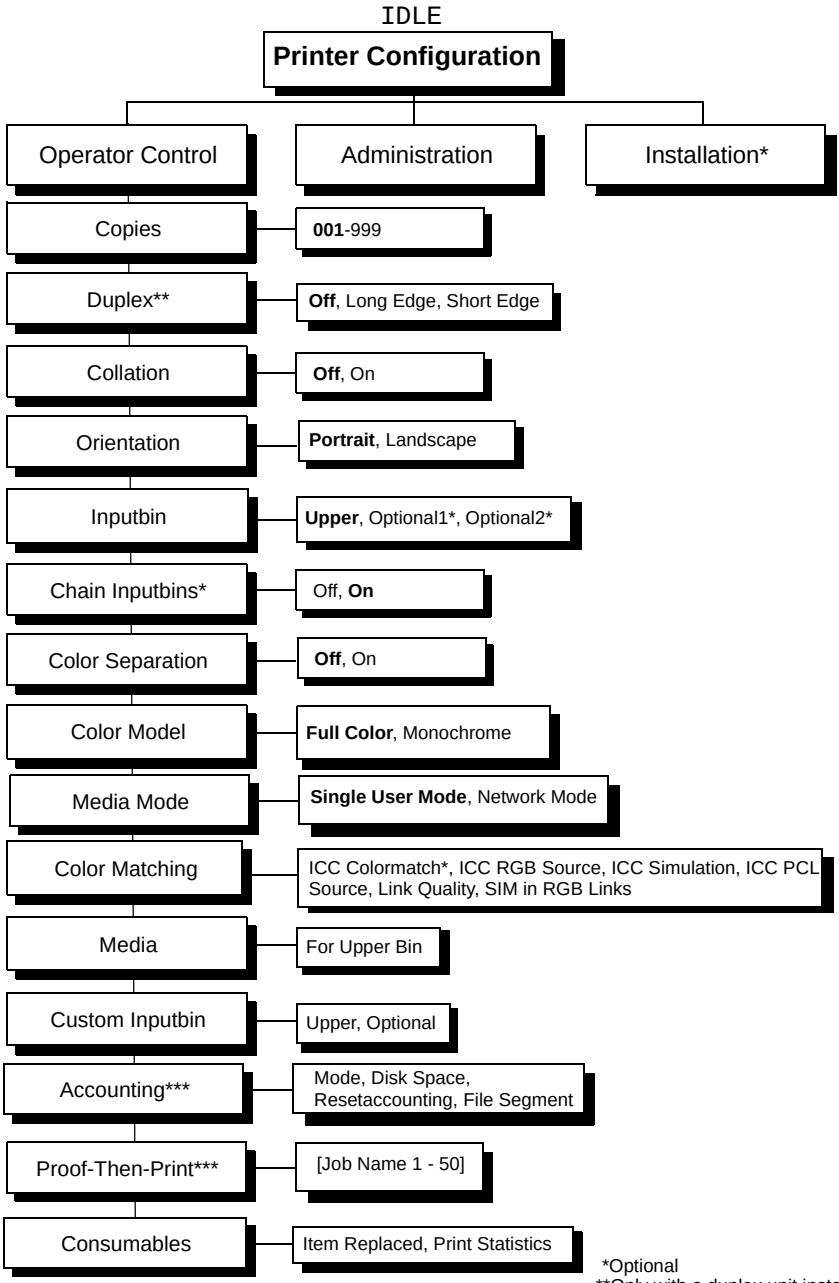
Automatic rotation of image	%%IncludeFeature: autorotation
Up or down scaling of image	%%IncludeFeature: autoscaling
Automatic selection of paper size	%%IncludeFeature: sheetsel
Annotation	%%IncludeFeature: annotation
Reverse image control	%%IncludeFeature: reverse
Control disk scratchfile size	%%IncludeFeature: scratchfile
Set annotation tag number	%%IncludeFeature: tag

Menu Chart Conventions

The following conventions are used in the menu charts:

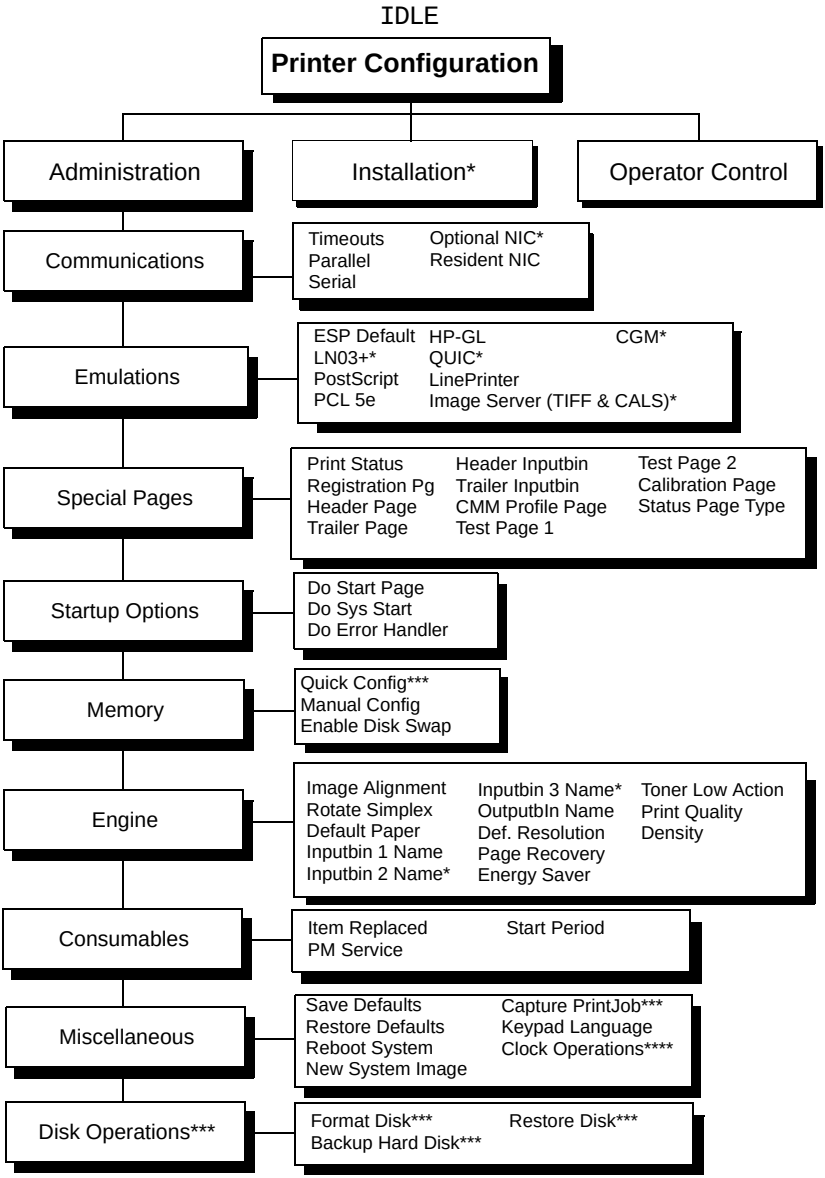
- Some menu choices are marked as optional, indicating that the selection appears in the menu only when the option is installed.
- These charts show only the top-level menus. Refer to the *CrownBook* for detailed information on menu options.
- Defaults are shown in bold face.

Operator Control Menu



*Optional
**Only with a duplex unit installed
***Only with a hard disk installed

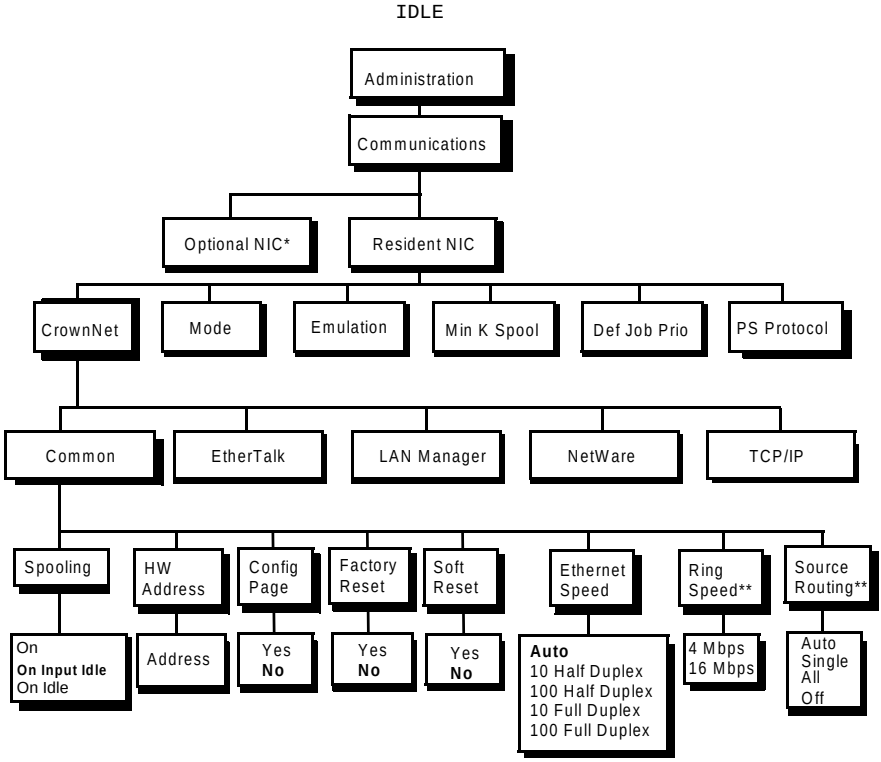
Administration Menu



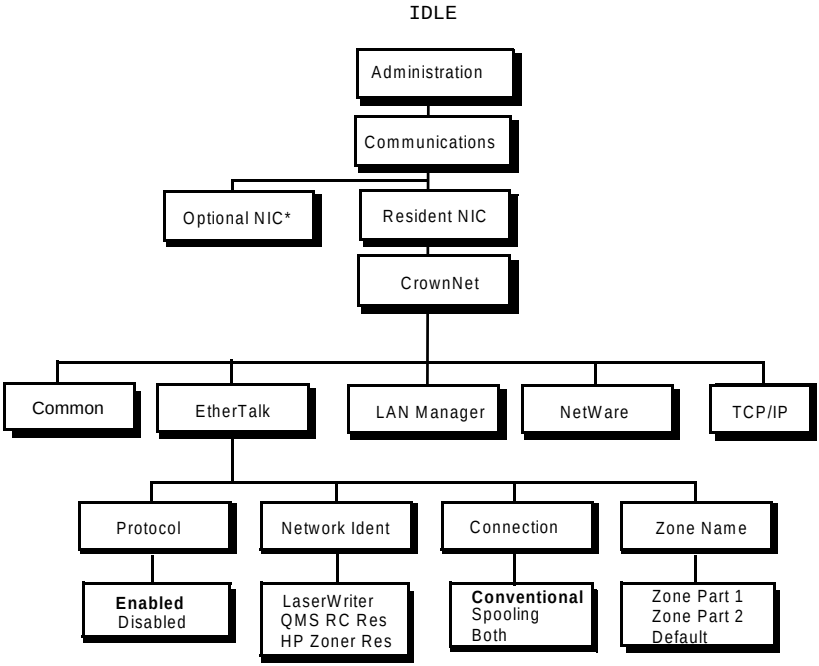
**Optional*
***Only with duplex unit installed*
****Only with hard disk installed*
*****Only with Time-of-Day clock installed*

Administration/Communications/Resident NIC/ CrownNet Menu

Common Menu

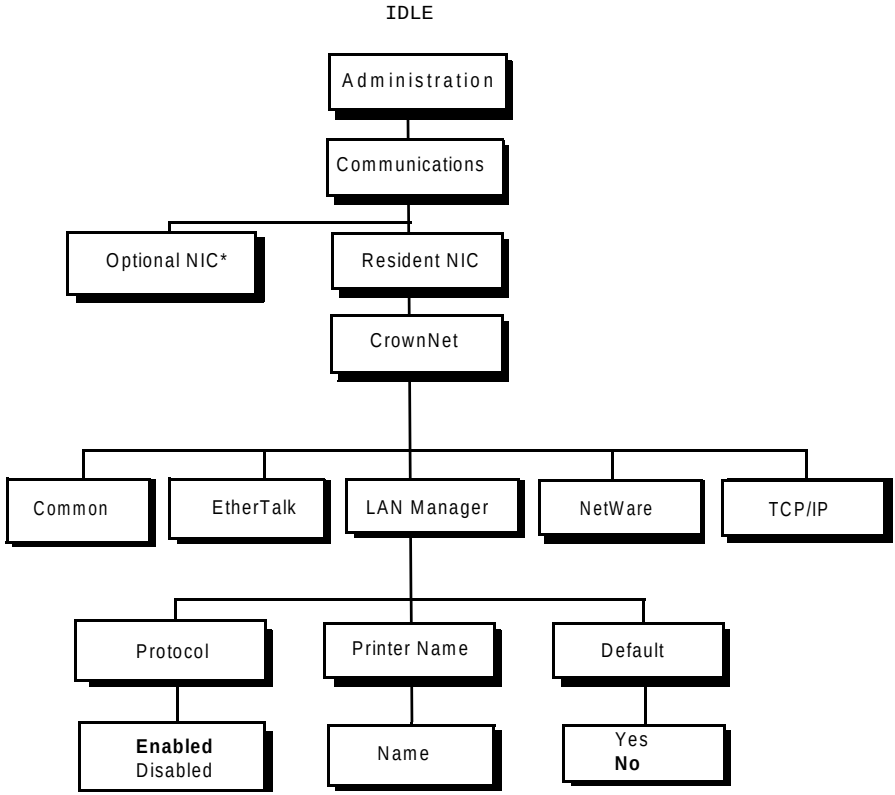


EtherTalk Menu



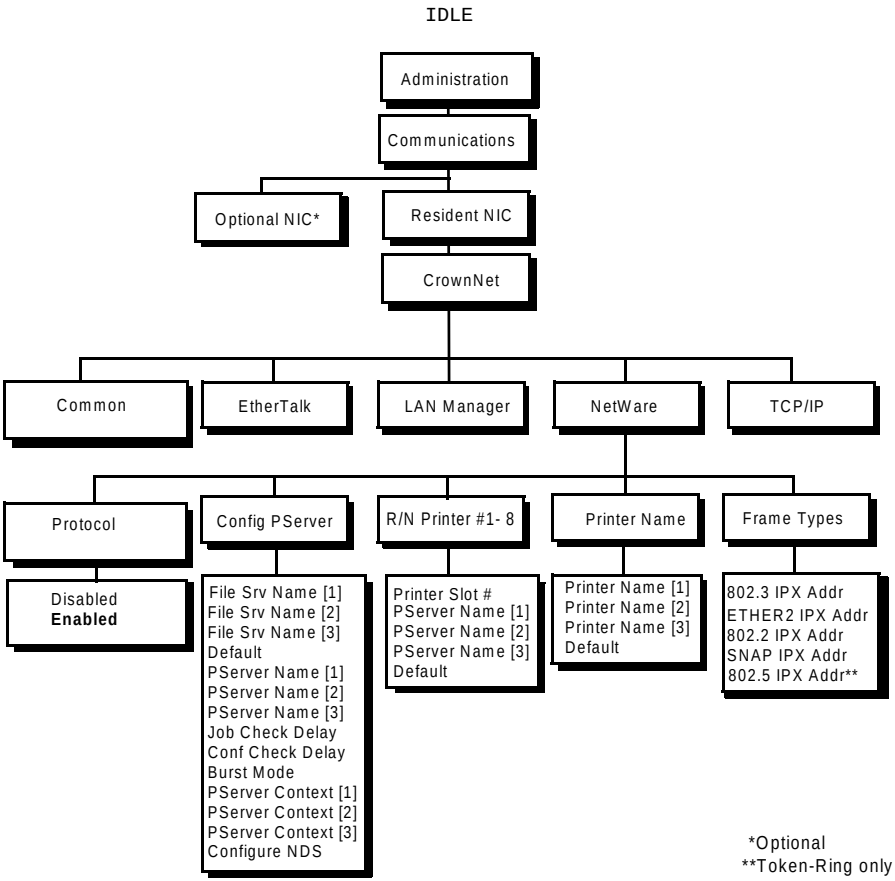
*Optional

LAN Manager Menu

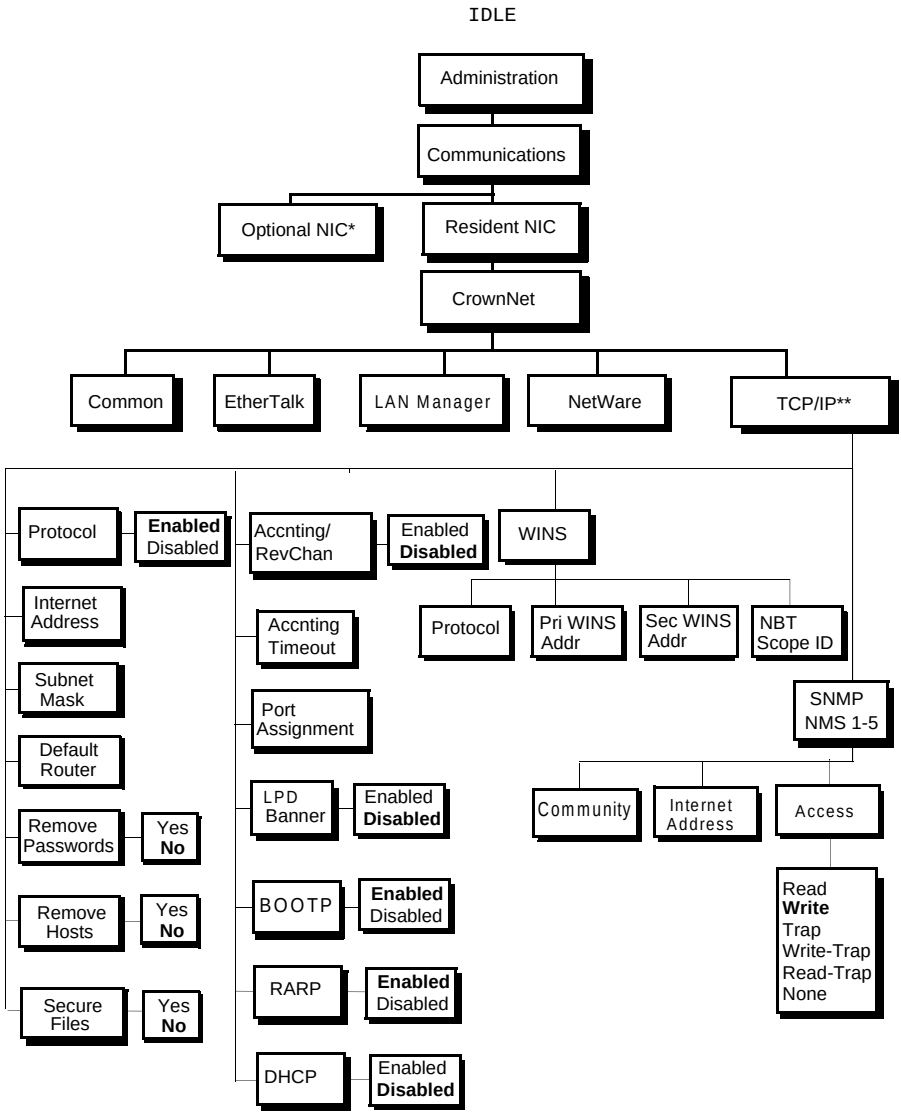


*Optional

NetWare Menu



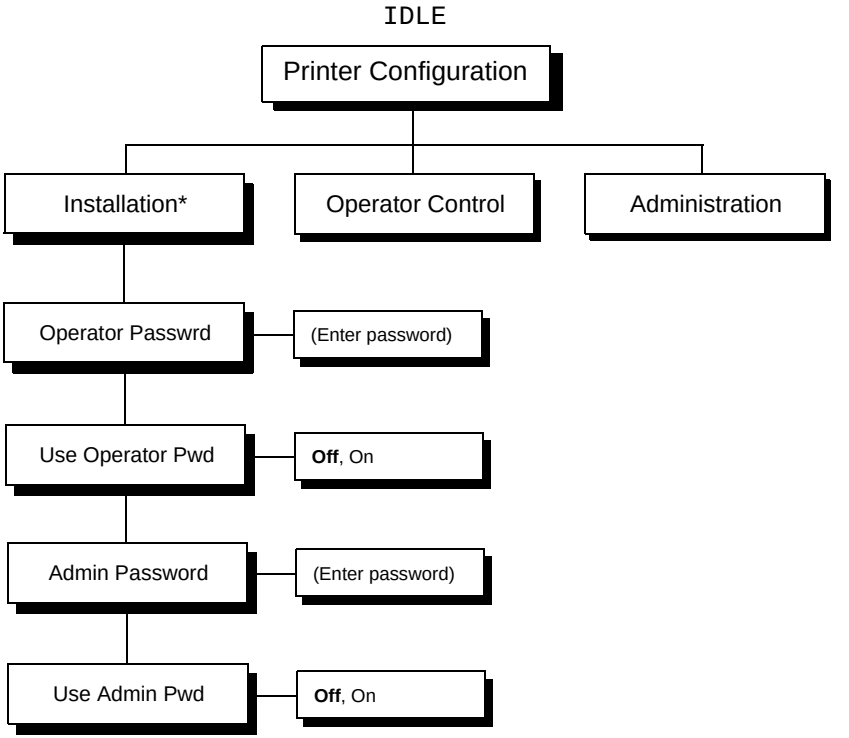
TCP/IP Menu



**Optional*

** Pri and Sec WINS Addr are IP addresses of the Primary and Secondary WINS servers (default 0.0.0.0). Default for DHCP and WINS is disabled. NBT Scope ID is any valid DNS domain name consisting of 2 dot-separated parts, or a "*" (default blank). An empty string (blank value) is ignored.

Installation* Menu



*Requires optional security key

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